DE-RP30-06CC30000 SITE TOUR SCRIPT

This script is to be used when leading the Site Visits as described in Section L.26 of RFP RP30-06CC30000. Since this script will be posted, it was seen as unnecessary to verbalize every detail in the script during the tour. To that end, only the highlighted text during the tour will be read. This is an opportunity for the bidders to take a look around, size up the facilities, and the magnitude of the proposed work after having reviewed the solicitation package documents and this tour script.

PRIOR TO START OF TOUR

- Notify Facility Managers of Tour and need for Lights in HLWISF, Solvent Storage Terrace Pump Room, PMCRE, PMC, GPC, etc.
- Check with PSOSS, x4239, on status of site area.
- Make sure vests are available at Shipping Depot.
- Make sure dosimetry is available at Shipping Depot and RCT at SSPF.

INTRODUCTIONS (handled by Contracting Officer)

View WVDP Safety video (Tour Guide)

Discuss location of Conference Room Emergency Exit (Tour Guide)

PRE-TOUR OVERVIEW

Contact Information Slide (read by Tour Guide)

Statement of Work Slide (read by Tour Guide)

The purpose of the contract is to prepare the WVDP to be safely and economically maintained and monitored until the High Level Waste (HLW) canisters are shipped and final decommissioning can occur. This is a Cost-Plus-Award Fee (CPAF) contract. The Contractor has the responsibility for total performance under the contract, including determining the specific methods for accomplishing the work. This contract covers the performance period from January 1, 2007 through December 31, 2010.

Services to be provided include but are not limited to: contaminated facility decontamination, deactivation and demolition; uncontaminated facility disposition; waste management; operation and maintenance of facilities and infrastructure (including the Remote Handled Waste Facility); safeguards and security; janitorial and grounds keeping services; laboratory services; State, Federal and DOE environmental regulatory compliance; radiological monitoring; administrative support services; and support of other DOE contractors performing on-site decontamination, deactivation, demolition, environmental restoration, and/or waste management activities.

Map Slide (read by Tour Guide)

The West Valley Demonstration Project, commonly called the WVDP, is located on approximately 200 acres of the Western New York Nuclear Service Center. The Western New York Nuclear Service Center comprises 3,345 acres of land originally set aside by the State of New York for a nuclear industrial complex. The WVDP premises were originally used for the commercial reprocessing of spent fuel rods. The WVDP Act of 1980 authorized the DOE to demonstrate solidification of 600,000 gallons of high-level waste left behind at the site by the reprocessing operations. The Western New York

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Nuclear Service Center is owned by the New York State Energy Research and Development Authority, known as "NYSERDA", with DOE given temporary possession of 200-acres referred to as the "Project Premises" to complete their responsibilities under the 1980 Act. Upon completion of their responsibilities under the Act, DOE will return possession of the 200 acres to NYSERDA.

WVDP Picture Slide (read by Tour Guide)

The WVDP Act states that the Secretary of Energy shall carry out the following activities:

(1) Solidify, in a form suitable for transportation and disposal, the high level radioactive waste at the Center by vitrification or by such other technology which the Secretary determines to be most effective for solidification;
(2) Develop containers suitable for the permanent disposal of the high level waste solidified at the Center;
(3) As soon as feasible, transport, in accordance with applicable provisions of law, the waste solidified at the Center to an appropriate Federal repository for permanent disposal;
(4) In accordance with applicable licensing requirements, dispose of low level radioactive waste and transuranic waste produced by the solidification of the HLW under the project; and
(5) Decontaminate and decommission, in accordance with Nuclear Regulatory Commission (NRC) requirements, the tanks and other facilities of the Center in which the HLW was stored, the facilities used in the solidification of the waste, and any material and hardware used in connection with the project.

WVDP Act Requirements 1 and 2 above are complete. Requirement 3 cannot be completed at this time. Requirements 4 and 5 are partially complete. The focus of this procurement is to complete requirements 4 and 5 with the exception of disposition of the Main Plant Process Building (MPPB) and the HLW tanks. The HLW tanks, MPPB, lagoons and other facilities and areas cannot be decommissioned until the Decommissioning Environmental Impact Statement (EIS) Record of Decision (ROD) is issued. The MPPB will remain and continue to be used to store the solidified HLW. All LLW and TRU waste will be dispositioned off site.

WVDP Site Facility Slide (read by Tour Guide)

This is a diagram of the major facilities on the WVDP. We are currently located here, at the Administrative Building. Our tour route will take us through the Main Plant Process Building, through the support facilities along the east side of the Project, through the Waste Tank Farm, the Remote Handled Waste Facility, the Vitrification Facilities, and then the support facilities to the south of the Main Plant Process Building.

Main Plant Slide (read by Tour Guide)

This is an isometric of the Main Plant Process Building. It shows the general arrangement of the primary cells in the Main Plant Process Building.

Facilities not included in tour slide (read by Tour Guide)

There are several facilities that we will not be seeing on the tour today due to their location or because of access control. These facilities are described in the next five slides.

Bulk Storage Warehouse Slide (read by Tour Guide)

This is a photo of the Bulk Storage Warehouse. It is an industrial facility used for the material storage. It is 80 feet wide by 163 feet long building with steel beam construction and light metal siding and roofing. This facility is located approximately 2.5 miles southeast of the Main Plant Process Building. DOE intends for this facility to be removed during the contract period.

Schoolhouse Slide (read by Tour Guide)

This is a photo of the School House. It is located approximately 0.5 miles south of our current location, just off of Rock Springs Road. It was originally a one-room schoolhouse and residence. Nuclear Fuels Service and the WVDP used the schoolhouse as environmental and bioassay sampling program laboratory; office space, sample storage area; and a training classroom. It is currently used as a deer check facility during the deer-hunting season. It is an 18 feet wide by 41 feet long wood-framed building with a shingled roof. It has its own septic system that includes a concrete tank and distribution box. DOE intends for this facility to be removed during the contract period.

Reservoirs and Dams Slide (read by Tour Guide)

These are overhead photos of Lake 1 and Lake 2. The lakes and their associated earthen dams provide surface water control and supply the site's water system. The south reservoir, known as Lake 1, has an earthen dam 75 feet high. The north reservoir, known as Lake 2, has an earthen dam 50 feet high. Lake 2 also includes a pump house and pipelines to transfer water to the Utility Room. It is DOE's intent that these facilities remain operation throughout the contract period.

Firing Range Slide (read by Tour Guide)

This is a picture of the Live Fire Range. This area, approximately 400 feet by 100 feet, supports the site security forces and is also used by the Cattaraugus County Sheriff's Department for training. DOE intends for this facility to be removed during the contract period.

CPC-WSA Interior View Slide (read by Tour Guide)

This is a photo of the interior of the Chemical Process Cell Waste Storage Area, also know as CPC-WSA. We will be seeing this Quonset type structure today, but due to access control requirements based on the dose rate of the waste in this facility, we will not be going into this facility today.

Visitor Responsibilities Slide 1 (read by Tour Guide)

We are concerned about your safety and the safety of the workers here on site. We ask you to please obey the following safety requirements:

- Please Look Out for Tripping Hazards, Uneven Surfaces, Water Leaks in Main Plant, and other Slippery Surfaces.
- Please use Handrails when on stairs.
- Please stay in the walkways at all times and watch for traffic in the roadways
- Please do not touch equipment, piping and controls; especially in radiological areas. Areas in the Main Plant Process Building above 7 feet are considered to be contamination areas.
- Please stay with your escort at all times.
- Immediately discuss any Safety Concerns with Escort.

Visitor Responsibilities Slide 2 (read by Tour Guide)

- Obey all postings, signs, barriers, and rules.
- Do not lean or reach over ropes.
- Follow your escort's instructions at all times.
- Only enter areas to which you have been granted access.
- No food or drink is permitted in radiological areas. Also, do not apply lip balm, etc.

Failure to follow the tour guide's instructions, especially regarding safety, may result in the tour being concluded before completion.

Pre-Tour Instructions (Radiological Postings Slide) (read by Tour Guide)

Before we head out for the tour, here are some important notes. We will be walking through radiological areas. We will have to pass through numerous Personal Contamination Monitors, when exiting buffer areas. Anything you are hand carrying will need to be frisked out at each of these locations. With this in mind, please leave all non-essential belongings here (there is file cabinet for your use down the hall). While on tour, do not set your papers, notebooks, writing utensils, cameras, etc. down on any surface within the facilities. If you do so, your item will have to be surveyed by a Radiological Control Technician. You are advised that any personal items that you choose to take with you on the tour may be confiscated if the items become contaminated or are believed to be contaminated. These items may not be returned to you. For your safety, please notify either of the tour guides if you set an item down, or drop an item. Also, do not lean on or touch windows or walls in the facilities, or reach or lean over radiological rope boundaries.

Personnel Contamination Monitor Slide (read by Tour Guide)

We will encounter two types of Personnel Contamination Monitors on this tour. The first type scans the body from side to side. You should stand sideways and insert your right arm into the Personnel Contamination Monitor. When the blinking red light near your eye-level stops, remove your right arm, turn, and insert your left arm. When the blinking light stops a small tone will sound and the message on the screen on the front of the Personnel Contamination Monitor will read "You may pass."

The second type of Personnel Contamination Monitor scans front to back. You should walk straight into the Personnel Contamination Monitor, insert your right arm in the slot beside you, and turn your face to the right. When the countdown clock reaches zero, you will receive instructions to turn around. Turn your body to face out of the Personnel Contamination Monitor, insert your left arm in the slot, and again turn your face to the right. You will receive instructions to exit when your scan is complete. IF AT ANY TIME ONE OF THE Personnel Contamination Monitors ALARMS, please follow the instructions of the guides and/or radiological technicians.

You should avoid walking in puddles, both inside **and** outside. Puddles inside may be contaminated. Radon is naturally occurring in this area, so walking through outdoor puddles may allow radon to accumulate on your shoes. Radon **will** alarm the Personnel Contamination Monitors.

Are there any questions on the information so far? (Questions may be answered by either the Contracting officer or the Tour Guide, as appropriate. The Contracting Officer will decide who should answer the question)

Tour Route (Stops are identified as →)

1. → Exit the conference room and enter the hallway of the Administrative Building.

Administrative Building

We will now begin the tour. The building that you are currently in is the Administration Building. It has general office space, the dosimetry lab, and the medical office, restrooms, and computer and phone support equipment. It is a corrugated sheet metal steel-framed structure on a concrete floor slab, measuring 40 feet by 14 feet and one story high. The interior is divided into approximately 20 rooms plus an 11 feet 4 inches wide by 60 feet long hallway. The interior finish is wood stud framing, dry wall, acoustical drop ceiling, carpet, and vinyl floor tile with some wood grain paneling. DOE intends for this building to be removed.

2. Enter Main Gatehouse (ensure tour guide has visitors' TLD and ED plus your own TLD)

3. → Move to the east side of the Main Gatehouse to provide the site physical orientation and a general listing of what is to the north and what is to the south.

To the north are the Main Plant Process Building, waste storage facilities, and support facilities. To the south are the support facilities (near) and disposal areas (far).

4. → Move to area in front of Main Plant Process Building.

Main Plant Process Building (MPPB)

This is the Main Plant Process Building. This front section, with all the windows, is an office building. It is a three-story concrete block and steel framed structure located adjacent to the west side of the Process Building. Its floors are concrete over steel decking. Its roof is steel decking with insulation and built-up roofing. The interior walls are wire lath and plaster. The office building is approximately 40 feet wide, 95 feet long,

and 44 feet high, and contains offices, men's and women's locker rooms, and 3 stairwells. DOE is contracting for the decontamination and deactivation of the Main Plant Process Building with the exception of systems required for HLW interim storage. By the end of this contract, the Main Plant Process Building will be demolition-ready.

5. Enter Main Plant at main entrance. Read script entry 5. Inform PSOSS of tour if not done earlier. Move up stairs into Radiological Buffer Area (CVA).

Please note that we are about to enter a Radiological Buffer Area. As a reminder, do not touch surfaces in this area or drop anything. You also should not chew gum or candy, drink anything, or apply lip balm in this area.

6. → CVA - Move to north end of aisle. Stop in corner under hatch.

Chemical Viewing Aisle (CVA)

This is the Chemical Viewing Aisle. Through these windows you can see the High Level Waste Interim Storage Facility, formerly the Chemical Process Cell. Historically this aisle was used to operate Chemical Process Cell coolers, view the cell, load fuel baskets in and out of dissolvers, move equipment in and out of the CPC, and operate the cranes and power actuated remote (PaR) manipulator. The aisle is currently used for general building access for maintenance and surveillance, view the cell and operate the overhead cranes and the PaR within the cell. A Personnel Decontamination Room is located at the south end of the aisle. The construction of this area is concrete and concrete block. Walls adjacent to the Chemical Process Cell are 5 feet 9 inches thick. The floor is 6 inch thick concrete slab except for a small section at the north end that passes under the Chemical Crane Room apron which is 3 feet thick concrete. The section above us contains a metal roof and roof hatch. The north wall is 2 feet thick concrete. The radiation shielding windows in this area use mineral oil between the lead glass slabs/plates..

High Level Waste Interim Storage Facility (HLWISF) formerly the Chemical Process Cell (CPC)

The High Level Waste Interim Storage Facility, formerly the Chemical Process Cell, was historically used for fuel dissolution and waste disposal operations, and later to support HLW vitrification. The High Level Waste Interim Storage Facility is now used for the interim storage of High Level Waste canisters, vitrification cell vessels and waste, and head end cell waste stored in drums. The walls are 5 feet 9 inches thick concrete except in areas adjacent to other cells, in which case they vary from 3 feet to 5 feet thick. The north end consists of one 12-inch thick steel section, and 2 sliding concrete doors to the Equipment Decontamination Room and Chemical Process Cell Crane Room. High density concrete (280 lb/ft) was used in upper wall portions where the wall was stepped back to accommodate crane rails. The ceiling is 5 feet thick and the floor 3 feet 9 inches thick and clad with stainless steel, which extends a few inches up the walls. There is also a hatch to General Purpose Cell within the cell.

7. → EDRVA – Move to EDRVA in front of "Green Room."

Equipment Decontamination Room Viewing Aisle (EDRVA)

This is the Equipment Decontamination Room Viewing Aisle. You can view the Equipment Decontamination Room through the shield window in this aisle. This aisle is

used to control and observe operations in the Equipment Decontamination Room and control the Chemical Process Cell crane. The "Green Room" for storage of Radiation Protection Instrument Tech supplies is located in this aisle.

Equipment Decontamination Room (EDR)

The Equipment Decontamination Room is located between the Chemical Process Cell to the south, Vitrification Cell to the north, and Load-In Facility to the west. Shield doors and an airlock isolate this room from its surrounding neighbors. Transfer cart rail access to the Chemical Process Cell and the Vitrification Cell is obtained from the Equipment Decontamination Room. Entry into and exit from the Equipment Decontamination Room for the current low level waste sorting activities is conducted through an airlock and a large shield door on the west side of the room. The Equipment Decontamination Room acted as an airlock to the Chemical Process Cell to remove or replace equipment in the Chemical Process Cell, allowed for some decontamination and hot contact maintenance, and acted as a storage area for remote handling of Chemical Process Cell equipment. The soaking pit, which is located under the built-up floor in the northeast corner of the cell was used to decontaminate equipment with decontamination reagents.

The Equipment Decontamination Room is constructed of reinforced concrete. The walls are 3 foot thick except for a section in the east wall common with the Scrap Removal Room where it is 4 feet thick, a section of the south wall that encloses the door to the Chemical Process Cell (which is made of 2 walls each 2 feet thick), and the upper 8 feet of walls which are 2 feet thick to allow for setback of the crane rails. The ceiling is 2 feet thick. The floor is 1 foot thick concrete surfaced with paint, currently covered with built-up flooring. The Soaking Pit is concrete with a stainless steel lining and measures 13 feet 6 inches by 22 feet by 16 feet 3 inches. The Chemical Process Cell door measures 11 feet wide by 14 feet high by 3 feet thick and is located in the south wall. The Load In/Load Out door measures 12 feet wide by 14 feet high by 2 feet thick. The room also holds charging shoes for the battery-operated cart that runs on the rails.

8. → Move to top of steps leading to COA. Indicate Silver Room at the bottom of the steps while talking.

Silver Room

The Rad Protection Counting Area or "Silver Room" provides an in-building support area for Rad Protection personnel. It is a temperature-controlled room constructed of aluminum panels and contains one fume hood.

9. → Move to COA, just past C-1 Sample Station.

Chemical Operating Aisle (COA)

This is the Chemical Operating Aisle now used for general building access for maintenance and surveillance, to store contaminated cell models, and to house the C-1 Sampling Station. Historically, it has been used to provide access to the Liquid Waste Cell and valves and instrumentation for the Chemical Process Cell. The High Level Waste Interim Storage Facility (or Chemical Process Cell) is on the other side of the wall to the west. It was constructed of reinforced concrete. The floor and ceiling are both part 6-inch thick concrete slab over corrugated metal decking and part heavier reinforced concrete 2 feet to 3 feet thick. The west and south walls are 5 feet thick concrete, the north wall 8-inch thick concrete block, and the east wall 2 feet to 5 feet thick concrete.

C-1 Sampling Station

The green structure to the west is the C-1 Sampling Station, sometimes called the Product Sample Cell. The Sampling Station is currently used only to sample vessels in the Liquid Waste Cell. It was used to sample vessels in the Chemical Process Cell and Liquid Waste Cell. It is built into the east wall of the Chemical Process Cell and is only accessible from here. It is connected to the Analytical and Process Chemistry Laboratory Sample Storage Cell by a powered conveyer tray/cart riding inside a 12-inch square stainless steel duct-like chute. The stainless steel chamber inside measures about 10 feet 4 inches long, 1 foot 2 inches to 1 foot 11 inches high, and is embedded 1 foot into the wall. It is completely surrounded by removable and permanent steel shielding blocks (for about 15 inches of shielding). It contains jets, a central needle block assembly, internal drain, ball-joint hand-operated manipulator, a 12 foot 4 inch by 7 foot 9 inch shield window, wrench assembly, sample bottle slide tube, and one light.

10. → Move to LXA, adjacent to VWR wall

Lower Extraction Aisle (LXA)

This is the Lower Extraction Aisle. The Extraction Cells are located behind the wall to the right (or South) and the Vent Wash Room behind the wall to the left (or North). It is now used for general building access for maintenance and surveillance and storage of contaminated cell models. This aisle was historically used as an operating and maintenance area with access to pipe and instrument penetrations to the Extraction Cells and Uranium Process Cell. The aisle contains pneumatic instrument transmitters that relayed level, density, and vessel pressure signals to the control room. Additionally, it contains Liquid Waste Treatment System equipment. It is constructed mostly of concrete. The remainder is concrete block. A 3 feet wide steel catwalk runs along the entire length for access to Extraction Cell wall penetrations 8 feet above floor. The aisle also contains thermocouple wiring between cell vessels and the control room and houses utility headers for steam, cooling water, plant air, instrument air, condensate, vacuum and fire water, ventilation supply and exhaust ducts.

11. → Move further down aisle to a point just south of model storage area.

This door leads to the Ventilation Wash Room. The door in the back leads to the Ventilation Supply Room. The adjacent door to the East leads to the former Instrument Room.

Ventilation Wash Room (VWR)

The Vent Wash Room contains an out-of-service air washer and duct work to handle exhaust air from the Main Plant Ventilation System. Currently, exhaust air from the Main Plant cells, analytical labs, and other plant areas is directed around the washer using the ventilation bypass. The Vent Wash Room was used to scrub chemical fumes from laboratory hood exhausts, particulate from cell exhausts, and other areas prior to the air entering the main filter plenum. It is constructed of reinforced concrete. The south and east walls, ceiling, and floor are 1 foot thick. The west wall is 2 feet thick, and the north wall, which is in common with the Process Mechanical Cell, is over 5 feet thick. Water for the air washer was originally circulated by a pump in a shielded niche alongside the wall that is now out-of-service. The washer catch basin has a drain to the Process Mechanical Cell. There is also a 3-inch floor drain on the east side of the room that ultimately connects to an interceptor. Internal filters were used to remove particulate and water droplets. Air exhausts through a 36-inch stainless steel duct to the Ventilation Exhaust Cell filter plenum. The duct is highly contaminated, resulting in higher gamma dose readings in this aisle and the Instrument Room in those areas near the duct.

Ventilation Supply Room (VSR)

The Ventilation Supply Room currently houses the main air intake equipment (large air handling unit) for the Main Plant Process Building, ventilation testing equipment, and miscellaneous suit-up/decontamination supplies. The Ventilation Supply Room historically housed the main air intake equipment for the Main Plant Process Building. It formerly contained an Instrument Shop with controlled atmosphere for equipment calibration. The floor and ceiling are 6-inch thick concrete slab over metal decking supported by structural steel framing. The north, south, and east walls are 8-inch thick concrete block. The west wall, in common with the Process Mechanical Cell, is concrete 4 feet to 5 feet thick. Floor tile still exists in the location of the former Instrument Shop.

Instrument Room

The Instrument Room served as an instrument repair area, but is currently empty.

12. → Move to southeast corner of model storage area so the doors to the East Stairs, PSC-1, and PSC-2 are in view.

Process Sample Cells (PSC-1 and PSC-2)

The small abandoned sampling cells in this area are Process Sample Cell-2 to the north of the east stairs and Process Sample Cell-1 to the south of the east stairs. Process Sample Cell-1 was used to sample the Product Purification Cells. Process Sample Cell -2 was used to sample the Uranium Product Cell, supporting both the Liquid Waste Treatment System and Sodium Bearing Wastewater Storage. Process Sample Cell -1 is approximately 5 feet by 15 feet by 10 feet including the airlock, is constructed of painted concrete block walls, and contains a glove box. Process Sample Cell -2 is approximately 10 feet by 10 feet by 10 feet including an approximately 4 feet by 5 feet airlock. It too is constructed of painted concrete block walls.

We will now proceed into and through the Upper Warm Aisle to the South stairs.

13. → Walk through east airlock into UWA. Stop at east end of UWA adjacent to crane and before niches.

Upper Warm Aisle (UWA)

This is the Upper Warm Aisle that is now used for general building access for maintenance and surveillance. It contains concrete pump niches and a hand operated 5-Ton bridge crane that runs east west over the niches for lifting concrete shield plugs from the niches. It was historically used to shield hot mechanical process equipment likely to require replacement, with a means to flush and access individual equipment items while minimizing radiation exposure. The Upper Warm Aisle is constructed of reinforced concrete. The floor; ceiling; and east, west, and south walls are 12 inches thick. The north wall is 3 feet thick except by Extraction Cell-1 where it is 5 feet thick concrete. This aisle contains in addition to the several concrete pump niches, a solvent filter, and a process hot water tank and strip solution heat exchanger. There is an airlock at the east end (through which we just passed) that has a stainless steel lined floor. Fixed contamination on the floor and wall in this area may be painted over or be covered with new concrete.

We will now proceed up the South stairs to the third floor to the Solvent Storage Terrace and 7D-5 Room.

14. → Move up the South Stairs to the 3rd Floor. Turn left (south) on the landing. Go up short flight of steps to the east off the landing to the SST. Enter the 7D-5 room. DO NOT ENTER THE OFF GAS AISLE.

7D-5

This is referred to as the 7D-5 Room, which formerly contained tank 7D-5. This room provides access to the Solvent Storage Terrace Pump Room (gray door) and the Solvent Storage Terrace (green door). It is constructed of painted concrete block walls.

Solvent Storage Terrace (SST) Pump Room

Behind the gray door is the Solvent Storage Terrace Pump Room. This room was last used to house portable ventilation units to support Decontamination and Decommissioning work in Extraction Cell-2. It formerly supported the solvent process for the extraction cells and Product Purification Cells. In the 1970s, it was converted to the Acid Handling Area, designed to isolate recovered acid streams and produce various strengths of acid for use in the extraction cells. The Acid Handling Area was never used. It is painted concrete block wall on three sides and solid concrete where is adjoins the Extraction Cells.

The other door (the green door) opens to the roof.

We will now return to the South Stairs and go up to the 4th Floor.

15. → Go back to the South Stairs. Take the South Stairs up to the 4th Floor. Go through the door to the 4th floor and then the swing arm into the UXA. Turn left and walk (to the north) to the door. Open the door leading to the VEC, HAC, and PCR area.

The Ventilation Exhaust Cell is up these stairs through that door labeled VEC. The Hot Acid Cell is directly in front of you behind the door labeled HAC. To the north is the Process Chemical Room.

Ventilation Exhaust Cell (VEC)

The Ventilation Exhaust Cell houses the base of the Main Plant Stack, filter plenums, two electric blowers, and two banks of filters. It provides access to the filters for change out and the blower for the Fuel Receiving and Storage Ventilation System is located here. The Ventilation Exhaust Cell has provided controlled ventilation air exhaust and filtration for the entire processing plant since 1966. The floor of the cell is 5-foot thick concrete and the ceiling corrugated decking w/insulation and built-up roofing. The walls are 12-inch thick concrete filled block. The cell contains the main ventilation exhaust blowers and associated drivers, plenums, filters, ductwork, dampers and controls. The base of the plant stack is located in the room and is visible through the window in the door. There are 2 parallel filtration systems in-cell; one for operation and one in standby (33,000 cfm each, with approximately 15 inch water vacuum). Each blower is connected to a filter bank. Each bank is comprised of 30 HEPA filters, 24 inches square by 11½ inches deep, of 1100 cfm capacity and 30 roughing filters of 2000 cfm capacity. A 5000 cfm electric blower exhausts air from the Fuel Receiving and Storage Facility to the stack, without backup or filter assistance. The room also contains a hoist.

Hot Acid Cell (HAC)

The Hot Acid Cell contains two nitric acid storage tanks, 1800 gallons and 3200 gallons,

that have been flushed and a pump niche. The Hot Acid Cell was originally intended to handle a partially decontaminated grade of nitric acid used for dissolving fuel. It did receive intermediate recovered acid and mixed batches of nitric acid for delivery to plant dissolvers. The main area measures approximately 17 feet by 20 feet by 15 feet. The walls are 1-foot solid concrete block. The ceiling is corrugated steel with insulation and built-up roof above. The floor is 5 feet thick concrete. The cell entryway and pump niche area measure 6 feet 4 inch by 12 feet 9 inch by 7 feet 6 inch high with a 5-inch thick poured concrete roof. All equipment and piping is 304L stainless steel.

Process Chemical Room (PCR)

The Process Chemical Room contains a power conditioner, compressor, and empty vessels. The Process Chemical Room was designed to feed solutions to Chemical Process Cell vessels. It has concrete block walls. The floor of the Process Chemical Room is the roof of the Chemical Process Cell, which is 5 feet thick concrete. The ceiling is metal decking covered with insulation and built-up roofing. The room contains 4 make-up tanks and feed pumps. The tanks vary from 100 to 1000 gallons; three tanks are 304L stainless steel, one tank is monel for handling dilute hydrofluoric acid.

Neither the Hot Acid Cell nor the Process Chemical Room is currently used. Let's go back out through the door to the aisle.

16. → Exit area through the same door. Move into UXA to a point adjacent to the Control Room.

Upper Extraction Aisle (UXA)

This is the Upper Extraction Aisle. The Extraction Cells are on the other side of the wall to the south. This area serves as general building access for maintenance and surveillance and contains ventilation ducts, utility headers, stack monitoring equipment, and instrument transmitters. The Upper Extraction Aisle was an operating aisle for access to utility and instrument connections to extraction cell equipment The floor and ceiling are 6-inch concrete slab over metal decking supported by structural steel and extraction cell walls. The south wall is 5-feet thick in some sections and 3-feet thick concrete in others. The east and west walls are 8-inch and 12-inch thick concrete block. The north wall is wire lath and plaster. A structural steel catwalk runs the length of the aisle, 8 feet 3 inches off the floor, for access to transmitters and piping. Most items in this aisle are currently shut down.

17. → Move through door into the center of the Control Room.

Control Room

This is the Control Room. Only a few limited instrument gauges are now operational. This area includes a records aisle that wraps around behind these instrument racks (from this open area on the left around to the door on the right), a small office, and the Analytical and Process Chemistry still storage area. A portion of the aisle is contaminated. The Control Room was used to house process control instrumentation for the reprocessing operations. The floor is reinforced concrete slab 6 inch thick. The west, south, and east walls are wire lath, metal studs, and plaster. The north wall is 8-inch concrete block with some permanent shielding adjacent to the location in which the 36-inch Main Plant ventilation duct runs up the outside surface of the building.

We will now take the East stairs to the Extraction Chemical Room.

18. → Exit the Control Room. Enter East Stairs and go up to the XCR. Enter XCR and stop on east side of XCR Enclosure.

Extraction Chemical Room (XCR) / Extraction Chemical Room Enclosure (XCRE)
The entire 5th Floor of the Main Plant is the Extraction Chemical Room. The Extraction Chemical Room now provides general building access for maintenance and surveillance and access to the extraction cells. The prefabricated enclosure, the white structure, is the Extraction Chemical Room Enclosure which has been used for Decontamination and Decommissioning of Extraction Cell-2 and as contamination control for the hydraulic arm in place at the top of Extraction Cell-1. The Enclosure contains two 5-ton gantry crane hoists and provides access to the tops of Extraction Cells-1 and -2. A 5-ton monorail hoist is located in the southwest corner of the Extraction Chemical Room and leads to the outside.

Historically this area contained many tanks used to mix and feed process solutions to the solvent extraction cells. The tanks and piping were 304L stainless steel and some Carpenter 20 stainless steel. This equipment was mostly removed. Concrete was poured inside the berm to cover the tank base legs and provide a level floor surface. The walls in this area are 8-inch thick concrete block and structural steel framing. The roof is metal decking with insulation and built-up roofing. A 5-ton hoist is located in the southwest corner of the room and leads to the outside. The floor is 3-feet and 5-feet thick concrete over the extraction cells and 6-inch concrete over the metal decking and steel framing over the Upper Extraction Aisle.

Pulser Equipment Aisle
The Pulser Equipment Aisle is located along the South wall of the Extraction Chemical Room and is currently not used. It was constructed of 12-inch thick concrete block walls. The ceiling is metal decking with insulation and built-up roof and the floor is 3 feet to 5 feet thick concrete. It historically contained 11 air pulsers for delivering timed and measured air pulses to 11 extraction columns in the cells below, as well as piping, valves, instrumentation, and surge tanks for controlling extraction system flow streams-some of which was in shielded enclosures. A small niche contained pipe and valves associated with extraction feed pressure pots. Some equipment has been removed.

We will now move around the Enclosure past the roof access door to the South stairs.

19. → Move along the north side of enclosure to the west end of the XCR. Stop adjacent to the XC-1 tent.

This part of the enclosure is over the top of Extraction Cell-1 where the remotely-controlled arm is located.

20. → Move down the South stairs to the OGA level on the 3rd floor of the Main Plant. Enter the OGA and stop adjacent to the PSC-3 door, without moving around the corner toward the ADA.

We are now located on the 3rd floor level of the Main Plant Process Building in the Off-Gas Operating Aisle.

Off-Gas Operating Aisle (OGA)
The Off-Gas Operating Aisle is now primarily used as a passageway between the

laboratories, office bldg, and the south and southwest stairs. It contains a 5 feet 6 inch diameter removable concrete floor plug for access to the Off-Gas Cell and a 3 feet 6 inch diameter plug for access to the Acid Recovery Cell. The plugs have roof hatches directly above them. Most of the valves, piping, instrument transmitters, pumps, tanks, and mixers that were in this area have been removed. There is historical chemical damage to the floor areas.

This aisle was used to monitor and control operations in the Off-Gas Cell, Acid Recovery Cell, and part of the Chemical Process Cell. It also provided access to Process Sample Cell 3, the 3rd floor offices, and the Analytical Decontamination Aisle. This aisle is constructed of structural steel framing and insulated metal roof deck. The south, east, and west walls are 12-inch thick concrete block. The north wall, in common with the Chemical Process Cell, is 3 feet 6 inches thick high density concrete. The floor is 1 foot 6 inches thick over the Acid Recovery Cell and 2 foot thick over the Off-Gas Cell.

Acid Recovery Cell (ARC) Tower

Located behind the corner that measures approximately 8 feet by 8 feet is the Acid Recovery Cell Tower. It is the upper portion of the Acid Recover Cell and houses the Acid Fractionator.

The door on your left is an entryway from the third floor Plant offices.

21. → Move around the corner past the ADA door toward the ANA door, but without going through the ANA door. (If the group cannot all fit around the corner, either back up closer to the ANA door, or ask them to fill walkway toward the plant office area.)

Process Sample Cell-3 (PSC-3)

The Process Sample Cell-3 is located off the aisle leading to the Analytical Lab behind the door labeled PSC-3 . Process Sample Cell-3 is now used to sample vessels in the Off-Gas Cell using a glove box and a remote manipulator. Process Sample Cell-3 was used to sample Off-Gas Cell and the Acid Recovery Cell vessels. It is approximately 6 feet by 10 feet by 10 feet including its airlock and is constructed of painted concrete block walls.

Analytical Decontamination Aisle (ADA)

The Analytical Decontamination Aisle is located off the same aisle opposite Process Sample Cell-3 behind the blue locked door. The Analytical Decontamination Aisle is used to provide access to the west side of the analytical hot cells, the 2-C sampler, and the Sample Storage Cell. It is 5 feet wide by 25 feet long.

Extraction Sample Aisle

As we pass through this next door, the door in front of you leads to the Extraction Sample Aisle and its Airlock. It now serves as a 5.33 feet wide by 30 feet long storage area to support the laboratories. Previously, the aisle contained two glove boxes for sampling the Product Purification Cells and Extraction Cell-2 and -3 vessels. The aisle walls and the walls of its airlock that measure approximately 5 feet 5 inches by 6 feet are constructed of painted concrete block except for the south wall where it adjoins the extraction cells.

22. → Move through the ANA door to the Analytical Lab Area. Stop at the first hallway intersection.

Analytical Aisle / Sample Cell-2 / Hot Analytical Cells

This is the Analytical Aisle and it is oriented in a north-south direction. The first window to the west (on your left) is for Sample Cell-2. Sample Cell-2 is used as a lab storage space. Sample Cell-2 has a master slave manipulator, external valving for air samplers, and access to the transfer cart system that serves all the analytical hot cells and the Sample Storage Cell.

Sample Cell-2 was used to remotely sample Off-Gas Cell and Extraction Cell-1 and -2 vessels. The cell measures 4 feet by 6 feet by 8 feet. The walls are 3 feet thick reinforced concrete, except where adjoining the next cell, where they are 18 inches thick. There is a 12-inch steel door measuring 3 feet by 8 feet located at the rear. The shield window is filled with mineral oil. The Cell is maintained under negative pressure.

The other five windows are for Analytical Hot Cells-1 through -5. These cells are used for sample analysis to support Decontamination and Decommissioning activities. Each cell has a shield window filled with mineral oil and each cell has a pair of master slave manipulators. Access to each cell is available through steel doors from the Analytical Decontamination Aisle. Analytical Hot Cells-1 and -5 have transfer drawers. All the Analytical hot cells have access to the transfer cart system for moving samples between cells and are equipped with standard lab utilities.

Nuclear Fuel Services used the cells for hot analytical work and plutonium sample storage. Prior to its current use, the WVDP used the cells to support Vitrification sample processing. Each cell measures 6 feet by 6 feet by 9 feet. The walls are 3 feet thick reinforced concrete, except between cells, where they are 18 inches thick. There is a 3 feet by 9 feet by 12 inch thick steel door at the rear of each cell. These shield windows formerly held zinc bromide, but are now filled with mineral oil. There are a pair of 3 feet by 6 feet stainless steel work pans mounted 3 feet from the floor of each cell. The cells are maintained under negative pressure.

The Analytical Decontamination Aisle is located behind these cells.

22A. Allow tour participants the opportunity to utilize the restrooms down the hall.

Analytical Laboratories

This intersecting hallway to the east contains the Hot and Cold Analytical Laboratories, associated storerooms, and change areas. The East stairs and washroom facilities are located at the end of this hall. As we continue down the Analytical Aisle, we will pass the remaining labs and the Sample Storage Cell on the west (to your left). These labs are used for chemical analysis to support Decontamination and Decommissioning and Facility Characterization. The labs were used for hot chemical analysis work to support fuel reprocessing operations (NFS) and Vitrification processing (WVDP). The interior walls of in these areas are wire lath and plaster except where adjacent to a processing cell with concrete walls. Exterior walls are 8-inch thick concrete block. The floor is 6-inch thick reinforced concrete over corrugated metal decking. The ceiling is the same as the floor, but with a lower false ceiling of acoustical panels and aluminum struts. The structure is supported with steel beams and columns. The labs contain approximately 100 lineal feet of lab bench space with the usual plumbing and various equipment.

Hoods in these areas may contain loose radioactive particulate.

23. → Continue down the hall. Stop in the sample storage cell work area.

Sample Storage Cell (SSC)
This is the Sample Storage Cell. It is used for sample analysis to support Decontamination and Decommissioning activities. It has three lead glass shield windows each with a pair of master slave manipulators, removable roof and wall plugs, a conveyor elevator to the C-1 Sampler, a 500 lb. hoist with a chute to the Process Mechanical Cell, and is at the north end of the transfer cart system that serves Sample Cell-2 and the Analytical Hot Cells. It was previously used for hot analytical work, Plutonium sample storage, and Vitrification sample processing. It measures 6 feet by 24 feet by 6 feet 6 inches with 3 feet thick reinforced concrete walls, except where it adjoins another hot cell, in which case the concrete is 18 inches thick. The floor is 4 feet thick concrete. This cell like the others is maintained under negative pressure.

24. → Continue down the hall. Stop between the doors to the PMCRE Airlock and the North Analytical Aisle (NAA).

Process Mechanical Cell Crane Room Enclosure (PMCRE) Area
On our right (towards the east), is the Process Mechanical Cell Crane Room Enclosure. The area includes a vestibule, suit-up/prep area, and airlock. This room formerly served as a counting lab before it was converted to serve as an access point to the Process Mechanical Cell Crane Room Enclosure.

On the other side of these double doors, we will pass the backside of the Process Mechanical Cell/Process Mechanical Cell Crane Room Door Hoist Enclosure on the right. The Hoist Enclosure houses the concrete shield door and door hoist equipment. It is structural steel framing with filled concrete block walls and has a rear entry door to access the ball screws and gear reducers for the shield door.

25. → Move through the double doors to a point between the CCR and PMCRE windows in the NAA.

North Analytical Aisle (NAA)/ Chemical Process Cell Crane Room (CCR)
This is the North Analytical Aisle. To the west is the entry tent to the Chemical Process Cell Crane Room. The Chemical Crane Room is used as a parking, decontamination, and maintenance area for Chemical Process Cell bridge cranes and the PaR manipulator. The east and west walls are reinforced concrete; 5 feet 9 inch thick at the base to 2 feet thick at top where they are set back for the crane rails. The thinner sections are high density (280 lb/cu ft) concrete. The north wall is 2 feet thick concrete and the south wall 3 feet thick concrete. The floor and ceiling are 2 feet thick concrete. The roof has removable concrete roof blocks. The floor also contains a removable floor hatch for manipulator repair. All surfaces were covered in carbolene paint. There is one lead glass window located adjacent to this steel clad access door with airlock and shielding labyrinth. There is a structural steel work platform on the north side for crane access. The 100-ton shield door in the south wall is raised and lowered with a built-in electric hoist. The room was originally equipped with lighting, spray piping for decontamination, and a floor drain to the Chemical Process Cell catch tank.

Process Mechanical Cell Crane Room Enclosure (PMCRE)

To the east, this window provides a view into the Process Mechanical Cell Crane Room Enclosure. The enclosure provides access to the Process Mechanical Cell Crane Room and the Process Mechanical Cell Shield Door Enclosure. It contains a 5-ton gantry crane and rolling hatch cover to access the Process Mechanical Cell Crane Room. It is constructed of structural steel framing and walls. It was added to provide Process Mechanical Cell Crane Room access.

On the way to our next stop, we will pass a window that looks in on the Process Mechanical Cell Crane Room and the door to the original crane room airlock. Since these areas are located in the North stairwell, I will talk about them here before we proceed.

Process Mechanical Cell Crane Room (PMCR)

The Process Mechanical Cell Crane Room provides a contact maintenance area for the cranes and power actuated remote (PaR) manipulator used in the Process Mechanical Cell. Through the lead glass shield window you can see the two overhead cranes and a manipulator crane. Two of the cranes run on rails 7 feet 2 inches above floor and the PaR crane on rails 4 feet 3 inches above the floor. A 4 feet square hatch in the floor leads to the Manipulator Repair Room. The Process Mechanical Cell Crane Room is constructed of concrete. The north and east walls are 18 inches thick. The south wall is the 55-ton concrete door to the Process Mechanical Cell and is 3 feet thick. The roof is 18 inches thick and the floor 2 feet thick. The airlock high on the west side measures 4 feet 6 inches by 8 feet 8 inches by 10 feet 6 inches. When the room was built, the north half of the roof was made of precast interlocking concrete sections which could be removed to replace an entire crane from outside the building. It was modified by the WVDP when the Process Mechanical Cell Crane Room Enclosure was built over the roof. Now the former roof is the floor of the Enclosure. The former concrete hatch sections were replaced with a rolling steel hatch. The concrete shield door is moved vertically by ball screw jacks. There was a provision for remotely washing down cranes in the original design. The original airlock off the north stairs is no longer used for Process Mechanical Cell Crane Room access. That access is now from within the Process Mechanical Cell Crane Room Enclosure.

We will now proceed down the North stairs, past the Process Mechanical Cell Crane Room window and the Process Mechanical Cell Crane Room Airlock door, and then outside to the Manipulator Repair Shop.

26. → Move down the North Stairs, stopping briefly by PMCR window to allow the visitors to look inside the cell. Continue down the stairs and into pigeon alley. Enter the Manipulator Repair Shop. Move to a point near the Contact Size Reduction Facility window.

Manipulator Repair Shop

This is the Manipulator Repair Shop where master slave manipulators used on site are repaired. It was constructed around 1971 to allow repair of contaminated master slave manipulators near to their point of use, particularly those in the Process Mechanical Cell, General Purpose Cell, Scrap Removal Room, and laboratories. It is concrete block, 35 feet 6 inches by 90 feet by 19 feet with structural steel framing, and has a concrete slab floor and metal roof deck with sloped built-up roofing. The facility has controlled ventilation, utilities, lighting, an overhead monorail, and decontamination facilities. The floors and tanks were designed to drain to a buried 1500-gallon tank (15D-6) east of the Manipulator Repair Shop. Under the Project, the ventilation has been upgraded, a new

floor poured, and a stainless steel pan added. Temporary shielding was installed in the southeast corner for additional protection from the Head End Ventilation filter plenum. The facility contains one lead glass shield window in the north wall that looks in on the Contact Size Reduction Facility. DOE intends for the Manipulator Repair Shop to be removed during the contract period.

Contact Size Reduction Facility (CSRF)/ Decontamination Room

Through this window in the north wall, you can see the Contact Size Reduction Facility. This room was used for the size reduction and packaging of contact handled Low Level Waste and the decontamination of master slave manipulators. It is now a RCRA container storage unit. There is an airlock with rollup doors to the cutting room, along with a man door from the Manipulator Repair Shop. The part of the facility once called the Decontamination Room is located behind the east wall, and can be entered through an airlock on the other side of the building, as well as a door in this section of the Contact Size Reduction Facility. This area was used for master slave manipulator decontamination. It is a 24 feet by 35 feet room with a stainless steel floor pan containing the master slave manipulator decontamination stall, a cutting room, and a staging area. The master slave manipulator decontamination stall contains an ultrasonic bath. The staging area contains a Liquid Abrasive Decontamination System (LADS) booth - apparently never used. The staging area may be accessed from the airlock on the east side of the building as well. These areas were also connected to the 1,500-gallon underground tank, 15D-6. DOE intends for the Contract Size Reduction Facility to be removed during the contract period.

We will now go back outside for a quick stop to see the Scrap Removal Room Enclosure and Airlock.

27. → Return outside and stop in front of the SRRE.

Scrap Removal Room Enclosure (SRRE) and Airlock

This is the Scrap Removal Room Enclosure and Airlock. It was used as an access point to move waste drums and boxes in and out of the Scrap Removal Room by use of a powered roller conveyor. It is not currently used.

We will now head back inside the Main Plant to the North stairs.

28. → Enter the MPPB by way of the North Stairs. Travel all the way down and into the GOA. Move east to the center of the GOA. Stop in front of the GPC windows, facing the group, with your back to the windows.

General Purpose Cell Operating Aisle (GOA)

This is the General Purpose Cell Operating Aisle. It provides general building access for maintenance and surveillance and access to the Miniature Cell and the General Purpose Cell Crane Room. It contains four lead glass shield windows - three to the General Purpose Cell and one to the Miniature Cell. The access door on the east end leads to the Miniature Cell. The access doors on the west end lead to the General Purpose Cell Crane Room airlock and the Chemical Process Cell Vault Waste Catch Tank. An equipment hatch located in the northeast corner of the aisle leads up to the South Manipulator Repair Shop and is serviced by a 2-ton crane. It has historically provided access to the Miniature Cell and the General Purpose Cell Crane Room and as an operating area for mechanical manipulation in the General Purpose Cell. It is

constructed of reinforced concrete. The east, west, and north walls are 1 foot 6 inch thick concrete. The south wall is 4 feet thick high density concrete (280 lb/cu ft). The floor and ceiling are 2 feet thick concrete.

General Purpose Cell Crane Room (GCR) and its Airlock

The General Purpose Cell Crane Room and its Airlock are accessible from the west end of the General Purpose Cell Operating Aisle. The airlock for access to the Crane Room is located on the north side of the Crane Room. The Crane Room and its airlock currently serve no use. The crane room has historically been used as a storage and contact maintenance area for the General Purpose Cell Bridge Mounted Manipulator System (PAR). It is constructed of reinforced concrete. The floor and west wall are 2 feet thick. The south wall is 2 feet to 4 feet thick, the north wall 3 feet to 4 feet thick, and the east wall 3 feet 6 inches thick with a door opening on the upper half covered by the General Purpose Cell shield door. The ceiling is 4 feet thick. There is a work platform 13 feet above the floor. The room was also equipped with spray headers to wash contamination from the crane, PaR bridges, and motors and gear boxes for the General Purpose Cell Crane Room-General Purpose Cell door jacks. The airlock is also constructed of reinforced concrete. It measures approximately 13 feet by 5 feet by 22 feet . The walls are a minimum of 1 foot thick except the south wall, in common with the General Purpose Cell Crane Room, which is 4 feet thick.

General Purpose Cell Crane Room Extension (GCRX)

The GCR Extension is located off the west end of the General Purpose Cell Crane Room. It was historically used as a General Purpose Cell crane bridge storage location. This extension allowed one or both bridges to be parked west of the main part of the General Purpose Cell Crane Room to allow entry into the room with reduced exposure.

Chemical Process Cell Vault Waste Catch Tank

The Chemical Process Cell Vault Waste Catch Tank is comprised of a concrete vault containing a 5,900 gallon tank. Tank 12-35104 contains Resource Conservation and Recovery Act (RCRA) constituents. The tank is used to collect contaminated drainage from all the crane rooms, the Chemical Process Cell door slot, and the Equipment and may be accessed through the door on that platform.

General Purpose Cell (GPC)

The General Purpose Cell contains a overhead bridge mounted PaR manipulator and auxiliary 2-ton chain hoist. Only one of the three lead glass shield windows is used for viewing. The General Purpose Cell has three ceiling hatches. One to the Process Mechanical Cell, one to the Chemical Process Cell, and the third to the Scrap Removal Room. The ceiling also contains an 8-inch diameter stainless steel chute from the Process Mechanical Cell. The General Purpose Cell was used to load chopped fuel into stainless steel baskets as it dropped from the Process Mechanical Cell shear through an 8-inch diameter chute; the basket could be temporary stored in storage areas located along the back wall of the cell. The baskets of chopped fuel were then transferred to the Chemical Process Cell through the roof hatch located to the right of the cell. After the chemical separation, the leached fuel hulls were returned to the General Purpose Cell. While the leached fuel hulls were in the General Purpose Cell, some of the hulls where removed and taken through the Process Mechanical Cell to the Sample Storage Cell, where they could then be analyzed to determine the effectiveness of the chemical dissolution. The remaining leached hulls were packaged for burial in the on-site disposal area. The leached fuel hulls were then moved to the Scrap Removal Room.

The General Purpose Cell is constructed of reinforced concrete. The north wall is 4 foot thick high density concrete. The east wall is 4 feet 2 inches thick, the south wall is 4 feet thick, and the west wall is 3 feet 6 inches thick concrete. The floor ranges from 1 foot 8 inches to 3 feet thick. The ceiling is 5 feet 6 inches thick. A stainless steel liner covers the floor and 16 feet up the wall. Each window has carbon steel shutters available. The ceiling also contains an 8-inch diameter stainless steel chute that was used to transfer chopped fuel from the Process Mechanical Cell shear to General Purpose Cell. There is a periscope and maintenance port located on the north wall. The General Purpose Cell Crane Room shield door is a 25-ton vertical door operated by screw jacks.

29. → Move to the east end of the GOA, near the MC window, and stop.

Miniature Cell / Miniature Cell Airlock

The Miniature Cell and its Airlock are here. The Miniature Cell was designed for possible use as an experimental, research, or special project area. It never contained process equipment and was never used during fuel reprocessing. It is not currently used. A shield door and labyrinth type airlock provide access through the northeast corner of the cell. There is a lead glass viewing window in the north wall from the General Purpose Cell Operating Aisle. There are manipulator ports over the shielded window, but no manipulators installed. There is one camera in one of the manipulator ports. A shielded transfer device exists for passing articles up to 5-inch diameter from the operating aisle to the cell. There is a 1-ton monorail hoist covered in the Miniature Cell, operable from the General Purpose Cell Operating aisle. The cell also contains utility connections from the aisle and a 16-inch diameter vertical chute to the Process Mechanical Cell.

The north wall is 3 feet 6 inches thick. The east wall is 18 inches thick. The south wall is 2 feet thick, and the west wall 3 feet 6 inches to 5 feet 2 inches thick. The ceiling is 5 feet 6 inches thick concrete. The floor is stainless steel covered.

The Miniature Cell Airlock is constructed of 12-inch thick concrete and is currently reported to contain miscellaneous debris and equipment.

30. → Go back to the North Stairs and travel up to the WMOA on the First Floor of the Main Plant. Stop just beyond the SRR window.

West Mechanical Operating Aisle (WMOA)

This is the West Mechanical Operating Aisle now used for general building access for maintenance and surveillance and is used for access to the Manipulator Repair Room. There are four lead glass shield windows each with two master slave manipulator ports over them for viewing the Process Mechanical Cell and one window with one manipulator and crane console for viewing the Scrap Removal Room. The High Level Waste Interim Storage Facility is located behind the west wall and the Liquid Waste Cell behind the south wall. Currently this area is being used for radiation workers on suit-up practicals for radiation workers. It served as the operating station for both the Process Mechanical Cell and the Scrap Removal Room, allowing visual contact and control of all operations in these cells as well as all powered cranes, manipulators, and other in-cell devices. The floor is 12-inch thick concrete slab, except over the roofs of the General Purpose Cell, the General Purpose Cell Operating Aisle, and the Miniature Cell. The ceiling is 6-inch thick concrete slab supported on metal decking structural steel and anchors in the Chemical Process Cell and Process Mechanical Cell. The walls facing

the Process Mechanical Cell, Chemical Process Cell, and Liquid Waste Cell are concrete. The north wall is filled concrete block. It also has two grating covered floor pits along the west wall

Scrap Removal Room (SRR)

This window on the right looks in on the Scrap Removal Room. The Scrap Removal Room was last used to move waste and waste containers in and out of the Head End Cells (Equipment Decontamination Room, Chemical Process Cell, Process Mechanical Cell, and General Purpose Cell). The room has an oil-filled viewing window at the southeast corner and a sliding concrete shield door, with limited operation, at the north wall leading the Scrap Removal Room Enclosure. An overhead door is currently used between the Scrap Removal Room and the Scrap Removal Room Enclosure at the north wall. A floor hatchway 3 feet 3 inches by 4 feet with a hydraulically operated hatch cover connects the Scrap Removal Room and the General Purpose Cell. It is not currently in use. Historically, the Scrap Removal Room was used for the removal of very high-level waste, mostly spent fuel hulls and scrap, from the General Purpose Cell for placement in a transport cask for removal to the Nuclear Regulatory Commission Licensed-Disposal Area. Scrap was usually loaded out in 30-gallon metal drums. Scrap could also come from Analytical Laboratory Hot Cells, the Process Mechanical Cell, and the Chemical Process Cell. It was also used as a pathway to place clean mechanical parts in these cells. It is constructed of reinforced concrete. The east and west walls and ceiling are 3 feet 6 inches thick. The floor is 5 feet 4 inches thick over the General Purpose Cell and 3 feet 6 inches thick over the General Purpose Cell Operating Aisle. The south wall facing the Chemical Process Cell is 20 inch thick steel. The floor is partially covered with 304L stainless steel. The lead, oil-filled viewing/shield window in the southeast corner has 2 manipulator ports, with one manipulator installed. A 3 feet 3 inch by 4 feet hatch connects to the cell to the General Purpose Cell. The hatch cover is operated by hydraulic control from this aisle. A 7.5 ton bridge crane runs the length of the room from north to south, and is also operated from this aisle. The cell was equipped with internal sprays for remotely washing down the floor and cask.

The High Level Waste Interim Storage Facility is located behind the west wall.

The Liquid Waste Cell is behind the south wall.

Process Mechanical Cell (PMC)

Through these other windows you can see the Process Mechanical Cell. It is not currently used. There a total of 6 lead glass shield windows with two manipulator ports above each of these window in the east and west operating aisles. Four of the six are usable for viewing. There are five manipulators installed at the four shield windows. There are two overhead crane bridges of 2-ton capacity, each traveling on rails 21 feet above the cell floor and the overhead crane bridge on the set of rails 18 feet 3 inches above the floor that carries a 1-ton capacity PaR manipulator. The cranes and PaR manipulator may be operated from electrical consoles at any window. The Process Mechanical Cell is connected by way of hatches in the southeast corner to the Fuel Receiving and Storage Facility (hydraulically operated 21-inch cover in a square frame over a 3 feet square hatch; in the northeast corner to the General Purpose Cell by a 3 feet by 4 feet hatch. It is also connected to the Miniature Cell by a 16-inch diameter stainless steel chute and an 8-inch diameter stainless steel chute to the General Purpose Cell. The east wall connects to a shielded transfer port and airlock. Most of the debris and major equipment in this cell was removed by November 2004. Gross decontamination was completed on the cell surfaces and a fixative was applied.

It was originally used to prepare fuel for chemical dissolution. It was shut down in 1972. It contained a 300-ton hydraulic shear, high-speed abrasive cut-off saw, tilt fixture, table, clamps, and rams for disassembly of fuel and shearing of that fuel into short pieces for dissolution. It is not currently used. The interior dimensions of this reinforced concrete cell are 12 feet by 52 feet by 25 feet . The walls and floor are 5 feet 6 inches thick. The ceiling is 6 feet thick concrete. The floor and walls are lined with 304L stainless steel welded to inserts in the concrete to a height of 20 feet 8 inches. The upper half of the north wall is a 3 feet thick elevating concrete door leading to the Process Mechanical Cell Crane Room.

Manipulator Repair Room (MRR)

The Manipulator Repair Room is behind the door to the north. This room was used for hands on repairs to the Process Mechanical Cell PaR manipulator by extending the PaR down through a 4 feet by 4 feet hatchway in the ceiling. The walls are 1-foot thick filled concrete block. The floor and ceiling are 2 feet thick concrete. The hatch can be covered with a stepped concrete plug from the crane room. There is a small 3 inch by 12 inch lead glass shield window for observation from this operating aisle. A means for washing down internals existed in-cell. Additional shielding on the walls and a stainless steel floor cover were added in the 1980's.

Next, we will make another brief stop outside.

31. → Move through WMOA towards the EMOA, but stop in the South MSM Shop.

South Master Slave Manipulator Repair Shop

This area is referred to as the South Master Slave Manipulator Repair Shop. It provides access to the Manipulator Repair Shop (through the double doors) and contains an equipment hatch and an emergency hatch to the General Purpose Cell Operating Aisle. It has painted concrete block walls and measures approximately 21 feet by 20 feet .

South Master Slave Manipulator Storage Area

The single door in the northeast corner is to the South Master Slave Manipulator Storage Area. This room may have been used as a parts storage area for the Master Slave Manipulator Repair Shop. It currently serves no purpose. The only access is from this door.

32. → Exit through the east door. Move down the boardwalk to the stairs near the front of the HEV Building.

Head End Ventilation (HEV) Building

The Head End Ventilation Building was constructed after the beginning of reprocessing operations to house the Head End Ventilation system. The ventilation system was installed to improve air flows in the Head End Cells (Equipment Decontamination Room, Chemical Process Cell, Process Mechanical Cell, and General Purpose Cell) and reduce problems with high airborne activity in the Head End Cells. Air that has passed through the Head End Cells is filtered through pre-filters, roughing filters, and 2 stages of HEPA filters before being exhausted by electric motor driven blowers or a backup electric motor driven blower to the Main Plant Process Building stack. The building is a concrete and concrete block structure. The building measures 23 feet by 17 feet by 22 feet. The lower level houses airlocks, filters, blowers, ductwork, and other associated equipment,

while the upper level contains a crane and filter change-out equipment. The filter housing area contains glove port aisles, but the gloves have been removed from the ports.

33. → Move back up the boardwalk. Stop adjacent to the HEV Monitoring Room.

HEV Monitoring Shed

This small area houses the instrumentation for monitoring the Head End Ventilation System.

Let's go back inside to the East Mechanical Operating Aisle.

34. → Enter the MPPB through the same door you used to exit. Move back into the EMOA. Stop just before the PMC-TA.

East Mechanical Operating Aisle (EMOA)

This is the East Mechanical Operating Aisle. It provides access for maintenance and monitoring of the Process Mechanical Cell, South Master Slave Manipulator Repair Shop, Fuel Receiving and Storage Facility, Chemical Access Aisle, and the Ram Equipment Room. It contains a motor control center (MCC-8), instrument panel for the Head End Ventilation system, relay cabinets for the cranes and the Process Mechanical Cell Shuttle Transfer Port. The floor is 12-inch thick concrete slab, except over the roofs of the General Purpose Cell, General Operating Aisle, and Miniature Cell. The ceiling is 6-inch thick concrete slab supported on metal decking structural steel and anchors in the Process Mechanical Cell. The walls facing the Process Mechanical Cell are concrete. The east and north walls are filled concrete block. This aisle also housed hydraulic, electrical, and some mechanical portions of the fuel shear and ram and operations controls for all other mechanical, electrical, or pneumatic devices in the Process Mechanical Cell. The area was air conditioned by a 15-ton unit, with a 2nd air handler in the West Mechanical Operating Aisle.

Process Mechanical Cell Shuttle Transfer Port

This structure is the Process Mechanical Cell Shuttle Transfer Port. It was a shielded airlock for passing parts and material into the Process Mechanical Cell from this aisle. It is currently inactive. It measures 9 feet by 7 feet 8 inches by 9 feet 2 inches. It is a 12-inch thick concrete block structure, built around never-installed shield window 2M-1E. The original window plug was replaced with a shielded transfer port containing a shuttle cart. The cart allowed for handling of pieces up to 20 inches by 20 inches by 28 inches long, and 300 pounds. The ceiling is 6-inch thick concrete. The airlock on the north side extends 3 foot 6 inch and is 8-inch concrete block. The floor slopes to the northwest to a 12 inch by 12 inch by 6 inch sump. The structure contains the transfer port assembly, an electric motor/gear reducer/chain drive shuttle cart, the shuttle cart travel beam, pneumatic cylinders to actuate shielding doors, and miscellaneous process piping, valves, and electrical connections for operation.

35. → Proceed south in the EMOA to the FRS Guard Room. Enter the Guard Room. Stop in the door to the Cell Access Aisle.

Fuel Receiving and Storage (FRS) Guard Room

This is the Fuel Receiving and Storage Guard Room or Central Alarm Station #1. This area was most recently used as a change area and supervisor's observation area for

entries into cells from the Chemical Access Aisle. Historically, this room housed central alarm system panels for the Main Plant Process Building. It has painted concrete block walls and measures approximately 9 feet by 12 feet .

36. → Move into the CAA.

Cell Access Aisle (CAA)

This is the Cell Access Aisle. The Ram Equipment Room, the Liquid Waste Cell, the Uranium Product Cell, Extraction Cells-2 and -3, and the Product Purification Cell are all accessible from this area. The Cell Access Aisle has served as an airlock and buffer area during any work activities, including maintenance of the Liquid Waste Treatment System in Extraction Cell-3 and the Uranium Product Cell and Decontamination and Decommissioning in Extraction Cell-2, into any of the adjoining cells and rooms. Currently, it provides general building access for maintenance and surveillance.

Uranium Product Cell (UPC)

The Uranium Product Cell contains two horizontal storage tanks (9 feet 6 inch diameter by 27 feet long, holding 15,000 gallons each) that are used as part of the Liquid Waste Treatment System. Under the WVDP, the room was decontaminated and the two tanks were retrofitted to support the Liquid Waste Treatment System. A shield wall was installed in the 1980s to isolate the south part of the cell to allow access to the Product Purification Cell-North. Historically, Nuclear Fuel Services used the Uranium Product Cell to hold off-specification uranium product and uranium product awaiting shipment in the two horizontal tanks. The cell is reinforced concrete, with the walls and ceiling being 1 foot 9 inch thick, except a portion of the south wall in common with the Product Purification Cell which is 1 foot thick. The floor is 2 feet 6 inches thick under the storage tanks and 1 foot 9 inches thick elsewhere, and covered with a 304L stainless steel liner.

Product Purification Cell (PPC)

The Product Purification Cell currently houses another portion of Liquid Waste Treatment System. Access to this cell is obtained through the Uranium Product Cell. Most all of the original equipment, platforms, ladders, and piping in the cell has been removed except for a lifting device that was used during the removal process. Openings were core drilled into the outer walls at various levels to provide air flow for control of airborne contamination during the removal process. Historically, this cell was used for final purification and concentration of uranium and plutonium product streams. It is constructed of reinforced concrete with 3 feet thick walls, floor, and ceiling. The north wall is 8-inches thick where it is shared with the Uranium Product Cell. The floor and approximately 16 inch of the wall are covered with 304L stainless steel. An internal 1-foot thick concrete wall runs east to west 5 feet from the south wall from floor to ceiling.

Extraction Cell –2 (XC-2)

Extraction Cell–2 has had all of its vessel, tanks, platforms, supporting steel members and ladders removed. A vent line that runs through the cell, a sump pump steam jet line, and a chemical pipeline remain in the cell. Historically, Extraction Cell-2 was used for secondary clean-up of the uranium and plutonium streams. It is constructed of reinforced concrete, with a 304L stainless steel floor pan. The floor, ceiling and west, north, and south walls are 3 feet thick. The east wall is 1 foot 6 inches thick. There is an access door (9 inches thick) at ground level.

Extraction Cell –3 (XC-3)

Extraction Cell–3 contains the major portion of the Liquid Waste Treatment System the evaporator. Under the WVDP, the cell was decontaminated and retrofitted to support the Liquid Waste Treatment System. Historically it housed equipment for the final extraction of uranium product, a solvent clean-up system, a pair of intermediate plutonium solution tanks, and a diluent wash system. It is constructed of reinforced concrete with a 304L stainless steel floor pan. The floor, ceiling, and north and south walls are 3 feet thick. The east and west walls are 1 foot 6 inches thick.

Liquid Waste Cell (LWC)

The Liquid Waste Cell currently interfaces with the Analytical Lab Hot Cells, the Liquid Waste Treatment System, and the Uranium Product Cell. The Liquid Waste Cell contains 9 tanks ranging from 500 to 8500 gallons. Two of the tanks are located within concrete shield walls in a corner of the cell. Historically the Liquid Waste Cell interfaced with the Chemical Process Cell, the extraction cells, and the analytical hot cells. Liquids were sampled remotely, heated, mixed, and transferred to the Chemical Process Cell by remote steam operated jets. The cell is constructed of reinforced concrete in an "L"-shaped configuration. The north-south leg measures 46 feet 3 inches by 17 feet, while the east-west leg measures 19 feet by 15 feet 9 inches. A 17 feet by 10 feet 6 inch room exists at the junction of the two legs with 18-inch thick concrete shield walls around the two tanks. The remaining wall thicknesses vary from 2 feet 3 inches to 3 feet on the south, east, and north sides, except the portion in common with Extraction Cell-1 which is 5 feet thick. The west wall is 5 feet 9 inches thick. The floor is 3 feet thick and covered with a 304L stainless steel pan. The ceiling is 3 feet thick except over the special inner cell area where it is 3 feet thick high density (280 lb/cu ft) concrete. The equipment and piping is 304L stainless steel except Tank 7D-14, which is Hasteloy Carbon.

Ram Equipment Room (RER)

The Ram Equipment Room is currently empty and not used. Historically, it housed the hydraulic ram equipment used to push spent nuclear fuel assemblies through the shear inside the Process Mechanical Cell. Under the WVDP, the ram hydraulic equipment in this room was removed. It measures approximately 25 feet long by 15 feet wide by 12 feet high and is made of reinforced concrete.

37. → From the CAA, move to the door to the FRS Airlock. Stop just BEFORE the airlock door, while still in the aisle.

Fuel Receiving and Storage (FRS) Building Airlock

We are about to enter the Fuel Receiving and Storage Building Airlock. It provides access to the Fuel Receiving and Storage building from the East Mechanical Operating Aisle. Its walls are constructed of painted concrete block. It measures approximately 4.5 feet by 5.5 feet.

38. → Move through airlock, a few people at a time.

39. → Stop in the South Aisle, beyond the steps, but with a clear view of the pool.

Fuel Receiving and Storage Facility (FRS)

We are currently standing in the South Operating Aisle of the Fuel Receiving and Storage Facility. Along the walkway to the left as you entered was the fuel transfer

tunnel. It connects the Fuel Storage Pool to the Process Mechanical Cell and was used to transfer fuel assemblies from the pool to the Process Mechanical Cell. The Fuel Receiving and Storage Facility has most recently been used as an area for waste sorting and preparation for shipping. There is an overhead 100-ton bridge crane with 2 auxiliary 5-ton hooks in the high bay portion of the facility. The Fuel Receiving and Storage Facility includes the fuel storage pool, cask unloading pool, a water treatment area that is contaminated, an office and change room on the south side of the building; decontamination pump house outside on the east side, and ventilation and dewatering buildings on the north side.

The Fuel Receiving and Storage Facility is a steel frame structure with insulated corrugated steel sandwich panel siding and roofing. The west and part of the south walls are concrete block and reinforced concrete. The floor is concrete slab on grade.

Fuel Storage Pool

This is the empty Fuel Storage Pool. Spent nuclear fuel assemblies were stored in the Fuel Storage Pool until transfer to the Process Mechanical Cell for reprocessing or for reshipment There is a pair of 2-ton service bridges which travel over the pool. The pool was drained, scoured, and painted to fix remaining contamination, and the floor grouted.

40. → Move to the end of the aisle, adjacent to the CUP.

Cask Unloading Pool (CUP)

This is the empty Cask Unloading Pool. Spent nuclear fuel assemblies shipped in casks to the Fuel Receiving and Storage Facility were removed from the casks or placed into the casks in the Cask Unloading Pool using special cask and fuel assembly handling equipment. It was drained, scoured, and painted to fix remaining contamination and the floor was grouted.

We will now exit the facility. Please remember the rules for use of the Personnel Contamination Monitors. If you are carrying anything that must be hand-frisked, please let me know.

41. → Exit the FRS via the trailer and PCM (be careful of numbers in the trailer and protocols at the PCM) at the FRS Change Room. Assemble the group just outside the FRS Door.

We will now re-enter the Main Plant via the East stairs.

42. → Re-enter the Main Plant through the East stairs airlock. Move to west end of airlock, near the East Stairs door.

Uranium Load Out (ULO) Area

This room to your right is the Uranium Load Out Area. The WVDP retrofitted the cell in the mid-1980s to support the Liquid Waste Treatment System. The original pumps in the small concrete niche measuring 3 feet by 3 feet 6 inches in the room were removed and replaced to provide service to the two 15,000 gallon tanks in the Uranium Product Cell. Valving, a sample station, and radiation monitors were also installed on a mezzanine above the niche to support Liquid Waste Treatment System operations. Under Nuclear Fuel Services, the Uranium Load Out was used for measuring shipments of uranyl nitrate hexahydrate solution in a 4000-gallon stainless steel weigh tank. The

Uranium Load Out floor is concrete and the roof is metal decking with insulation and built-up roofing. The walls are 8-inch thick concrete block except for part of the east wall in common with the Uranium Product Cell, which is 21-inch thick reinforced concrete. The equipment was stainless steel for process purposes and carbon steel for utility lines. The floors and walls were originally covered with carbolene paint.

We are standing in the East Stair Airlock, which provides general building access for maintenance and surveillance and access not only to the Uranium Load Out but to the Waste Reduction and Packaging Area, and the east stairs. It measures approximately 6 feet 6 inches by 19 feet and the floor is 5 feet below the floor of the Waste Reduction and Packaging Area.

Up these stairs is the Waste Reduction and Packaging Area, where we will stop next.

43. → Move up stairs and into main open floor area of WRPA.

Waste Reduction and Packaging Area (WRPA)

This is the Waste Reduction and Packaging Area, formerly the Product Packaging and Shipping Area. This area is currently used as a Low Level Waste compaction area using a 50-ton hydraulic compactor and 1,200 lb capacity hoist. The Liquid Waste Treatment System Mercury Abatement ion exchange columns.are also located here. The Product Packaging and Handling area is located on the other side of the west wall of this area. At the south end, there is a 16 feet by 18 feet by 14 feet high airlock connecting the Product Packaging and Shipping area, the Product Packaging and Handling area, the Lower Warm Aisle, and the outdoor shipping dock. The walls in the WRPA are 8-inch concrete block. The roof is corrugated metal with tar and stone as a sealer and final coat. The floor is finished concrete with drainage into the Product Packaging and Handling area. A 6 feet by 8 feet high sliding door gives access into the Product Packaging and Handling area

44. → Enter the Lower Warm Aisle Airlock.

We are currently standing in the airlock adjoining the Lower Warm Aisle, the Product Packaging and Handling Area, and the Product Packaging and Shipping Area. To your right is the Product Packaging and Handling Area. Around that corner to the left is the original shipping dock.

45. → Enter the Lower Warm Aisle

Lower Warm Aisle (LWA)

This is the Lower Warm Aisle. It is now used for general building access for maintenance and surveillance and to support the Liquid Waste Treatment System. The aisle has ten pump niches containing radioactive pumps, lines, and valves. Some of the pump niches are used as part of the Liquid Waste Treatment System. There is a manually operated 5-ton overhead bridge crane for lifting of the niche covers that runs the full length of the aisle. Instrumentation and electrical services in the aisle were damaged by historical chemical corrosion. The Lower Warm Aisle is constructed of reinforced concrete with 1 foot thick east, west, and south walls and roof. The north wall in common with the extraction cells, varies from 5 feet 3 inches to 3 feet thick. The walls of the pump niches vary from 12 inch to 2 feet 6 inches thick with 12 feet to 15 feet long

covers. Some niches are made of high density concrete (280 lb/cu ft). All of the niches are lined with stainless steel.

We will now return outside through the East Stair Airlock, passing through the Personnel Contamination Monitor. Again, if you have anything that needs to be frisked please notify me.

46. → Exit through the East Stairs after passing through the PCM. Proceed south on the paved area to the south end of the WRPA dock.

Main Plant Switch Gear Room

The Main Plant Switch Gear Room is located behind the fenced area to your right It is the power supply distribution center for the Main Plant Process Building. The room contains the main 480V, 3-phase bus and 10 main circuit breakers that supply 14 Motor Control Centers for the plant. A step down transformer is located just outside the east wall. The E-bus portion of the 480V bus is supplied with power automatically from a 625 kVA emergency diesel generator in the Utility Room. The Main Plan Switch Gear Room is constructed of concrete block walls, steel framing, concrete floor, and metal roof decking with insulation and built-up roofing. A section of the north wall in common with the Lower Warm Aisle is 12-inch thick concrete.

This completes the tour of the Main Plant Process Building. We will now be touring the remainder of the Project facilities.

47. → Travel east to intersection of roadways. Point out TSB, MNT Bldg, Storage trailers, Interceptors.

Old Interceptor

Looking south, the structure closest to the road is the Old Interceptor. It is a 37,000 gallon concrete catch basin no used for storing radiologically contaminated liquids that exceed the effluent standard prior to eventual transfer to the new interceptor. The out-of-specification process water is then routed by an overland line and mixed with water in the New Interceptor. The Old Interceptor was used to collect process waste waters from the Main Plant Process Building before treatment by the Low-Level Waste Treatment System. DOE intends for this facility to be operational throughout the contract period.

Neutralization Pit

Connected to the Old Interceptor is the Neutralization Pit. It is an 800 gallon in-ground, stainless steel lined concrete open top tank used to mix plant waste waters and route them to the New Interceptor. It was used to collect process waste waters from the Main Plant Process Building for pH neutralization before transfer through the Low Level Waste Treatment System. DOE intends for this facility to be operational throughout the contract period.

New Interceptor

The structure located just beyond the Old Interceptor is the New Interceptor, both the North and South portions. It is an open top concrete box split into two 25,000 gallon stainless steel-lined portions, North and South, that receive plant floor drain and laundry water before entry into the Low-Level Waste Treatment system. DOE intends for this facility to be operational throughout the contract period.

Test and Storage Building (TSB)
The Test and Storage Building is used as a fabrication shop, support facility, parts storage area, break area, tool crib, and for offices. It measures approximately 80 feet by 120 feet . It is a steel framed structure with plywood and corrugated metal siding, metal roof, and concrete floor. DOE intends for this facility to be removed during the contract period.

Maintenance Building (Maintenance Shop)
The next building to the east of the Test and Storage Building is the Maintenance Building. It was constructed in 1970 and is used for cold maintenance and fabrication work for the plant. It has both a high bay 40 feet by 98 feet work area with a 5-ton traveling bridge crane, machine tools, and metal-working equipment and a two-level area 20 feet by 98 feet that contains tool storage, an electrical shop, parts storage, a small pipe shop, a heating and ventilation unit, locker room, sanitary facilities, and Instrument and Calibration shop. The steel frame building on a concrete slab has walls made of insulated corrugated metal panels and the roof is corrugated metal with sprayed on insulation on the outside, protected with a rubber based fire retardant finish. The building is heated with radiant gas heaters and forced air. DOE intends for this facility to be removed during the contract period.

Industrial Waste Storage Area
The area to your right, across the road, and located south of the Test and Storage Building and Maintenance Shop is referred to as the Industrial Waste Storage Area. It consists of two metal storage lockers used for the temporary storage of containerized industrial waste prior to off-site transport, lawn care equipment storage, and lubricants. Formerly, it was used for the staging of excess equipment from Process Building upgrades (under Nuclear Fuel Services). DOE intends for this facility to be removed during the contract period.

48. → Walk past the Maintenance Building and around the corner to a point equidistant from 02, LLW2 and VTF. Point out these facilities (read descriptions), then enter the LLW2.

Low Level Waste Treatment Facility
The abandoned building in front of us is the former Low Level Waste Treatment Facility, also known as the 02 Building. The two story concrete block building has had its equipment removed, utilities isolated, and gross decontamination was completed in 1999. Historically, put into service in 1971 it received plant liquid wastes below 5E-3 µCi/mL gross beta and decontaminated them to below the drinking water maximum level for Sr-90 and Cs-137 by flocculation and centrifugation The building measures 27 feet by 39 feet, This facility may be removed prior to award of this contract. If not, DOE intends for this facility to be removed during the contract period.

Vitrification Test Facility (VTF)
This building is the Vitrification Test Facility. It was used as a test support facility and parts storage area, for mock-ups, and as office space. It contains an overhead bridge crane, the Scaled Vitrification System, and mockup training equipment. It also includes the Ammonia Storage Room located off the northeast corner of the building. It is a 44 feet wide by 122 feet long high bay building, steel framed with corrugated metal siding and roof.. The Scale Vitrification System and associated equipment may be removed

prior to award of the contract. DOE intends for this facility to be removed during the contract period.

Low Level Waste Treatment Facility 2 (LLW-2)
The building we will enter next is the current Low Level Waste Treatment Building, also known as LLW-2. We will step inside the doors to allow you to see the inside, and then move around to the back of the building to view the lagoon system.

This facility replaced the first Low Level Waste Treatment Facility, or 02 Building, for the purposes of processing the site's low-level radioactive liquid waste. The facility contains 2 skid-mounted ion exchange water treatment systems. Skid "A" is used for treatment of plant process water from Lagoon 2. Skid "B" treats water from the North Plateau Groundwater Recovery System. It is a steel framed structure w/corrugated metal siding and roof. It is DOE's intent for this facility to be operational throughout the contract period.

49. →Proceed to the south side of the LLW2 facility. Point out Lagoon system.

The two clay lined lagoons to your right are Lagoons 2 and 3, (3 is farthest to the east). The two smaller, lined lagoons in front of you are Lagoons 4 and 5, respectively. The area to the west of Lagoon 2 is where the former Lagoon 1 was located.

Lagoon 2
Lagoon 2 has a storage capacity of 2.4 million gallons and is used to store plant radiological wastewater discharged from the New Interceptors before its contents are transferred to the Low-Level Waste Treatment System. It is DOE's intent for this facility to be operational throughout the contract period.

Lagoons 4 and 5
Lagoons 4 and 5 receive treated water from the Low-Level Waste Treatment System, hold that treated water for analysis and pH adjustment. Lagoon 4 has a capacity of 204,000 gallons. Lagoon 5 has a capacity of 166,000 gallons. It is DOE's intent for these facilities to be operational throughout the contract period.

Lagoon 3
Lagoon 3 is the final holding lagoon for decontaminated liquid waste prior to discharge to Erdman Brook. It has a storage capacity of 3.3 million gallons and receives treated water from Lagoons 4 and 5. Periodically, treated wastewater held in Lagoon 3 is discharged to Erdman Brook through a state permitted discharge. It is DOE's intent for this facility to be operational throughout the contract period.

50. → Walk over to the Shipping Depot.
→ Point out Maintenance Storage Area, Vehicle Maintenance Shop on the way and then point out the NPGRS, CDDL, and Cold Hardstand when outside the Depot.

Maintenance Storage Area
To your left is the storage structure measuring about 32.5 feet by 40 feet referred to as the Maintenance Storage Area. DOE intends for this facility to be removed during the contract period.

Vehicle Repair Shop

To your right is the Vehicle Repair Shop. It is a 30 feet deep by 47 foot wide steel framed structure with corrugated metal siding and a metal roof. DOE intends for this facility to be removed during the contract period.

North Plateau Groundwater Recovery System

That white colored cargo container contains the North Plateau Groundwater Recovery System, known as the pump and treat system. The system was installed in the mid-1990's to pump Sr-90 contaminated groundwater and treat it at the Low Level Waste Facility 2 in Skid "B." The cargo container is 8 feet wide by 40 feet long, insulated, contains 3 recovery wells and has an associated storage shed located behind it. It is DOE's intent for this facility to be operational throughout the contract period.

Construction and Demolition Debris Landfill (CDDL)

The grass covered , slightly mounded area beyond the North Plateau Groundwater Recovery System, on the other side of the road, is the Construction and Demolition Debris Landfill. Non-radioactive construction, office, and facility debris and ash from a paper incinerator were buried here from 1963 until 1984. The Construction and Demolition Debris Landfill covers an area of 1.5 acres that was excavated into the sand and gravel layer on the north plateau (as indicated by the five boreholes nearest the Construction and Demolition Debris Landfill) to a depth of 10 to 15 feet below preoperational grade. It does not have a liner or a leachate detection/collection system. DOE expects no further action during the contract period.

Cold Hardstand

The small gravel area across the road to the north of the North Plateau Groundwater Recovery System is called the Cold Hardstand. It is now used for the temporary staging of heavy equipment, empty drum crushing, and equipment storage. Historically, it was used for the staging of containerized paint, used oil, and spill cleanup material. It was later used as a nonradiological, nonhazardous waste staging area DOE intends for this facility to be removed during the contract period.

Vitrification Test Facility Waste Storage Area

The area behind the North Plateau Groundwater Recovery System trailer is the Vitrification Test Facility Waste Storage Area used to store closed tanks. Originally, this area contained several above-ground stainless steel storage tanks used in support of the Scaled Vitrification System. DOE intends for this facility to be removed during the contract period.

Lag Storage Complex

The lag storage complex consists of several buildings to include the Shipping Depot, Lag Storage Area-4, Lag Storage Area-3, Lag Storage Area-1, and Lag Storage Building.

We will now head into the Shipping Depot Office Area where we must sign in with the Facility Manager and obtain additional dosimetry. Each of you must also wear a safety vest while in the Lag Storage Complex for increased visibility for the fork truck operators.

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51. → Log into visitor's log in the office area on behalf of the tour. Enter Shipping Depot. Obtain tour EDs and surrender tour general EDs. Notify issuing person of the exchange arrangement for the EDs. Eds are to be exchanged at the SSPF in approximately 10 to 15 minutes. Point out Shipping Depot Containment.

Shipping Depot

This is the Shipping Depot. It consists of an office space on the east side and a work space called the Depot Containment that currently supports waste sorting and repackaging activities on the west side. The Shipping Depot, a 91 feet by 85 feet steel framed metal building, enclosed the Depot Containment and office space, and shares a common wall with Lag Storage Area-4 The containment was first used for asbestos abatement activities DOE intends for this facility to be removed during the contract period.

52. → Enter LSA-4 through the mandoor to the east, as opposed to the roped boundary entry by the PCM, to avoid frisking. At LSA-4 point out CSPF and WPA.

Lag Storage Area - 4 (LSA-4)

This facility is used for the storage and preparation for shipping of radiological wastes and mixed wastes. LSA-4 contains the Container Sorting and Packaging Facility, and the Waste Processing Area in addition to waste storage space. It is a clear span steel framed metal building 88 feet wide by 291 feet long and 40 feet high on a 7 inch thick concrete slab. DOE intends for this facility to be removed during the contract period.

Container Sorting and Packaging Facility (CSPF)

The Container Sorting and Packaging Facility is used to sort, segregate, and repackage Low Level Waste and Low Level Mixed Waste, and to inspect container contents. The Container Sorting and Packaging Facility consists of a sorting room, drum/box load in room, drum load-out room, and two airlocks. The sorting area houses a lift-and-tilt table to elevate and tip containers, a sorting table with liquid catch basin, drum roller, and an overhead bridge crane. Adjacent to the Container Sorting and Packaging Facility is a stand-alone blower room that houses the ventilation system and other components essential to sorting operations. It measures 40 foot by 28 foot and is constructed of prefabricated, interlocking modular 22-gauge stainless steel panels that form the outside walls, ceiling, and inner partition walls. Some wall and ceiling panels contain Plexiglas® windows for viewing and external lighting purposes. The concrete floor of Lag Storage Area-4 serves as the floor of the Container Sorting and Packaging Facility. The ventilation system consists of a double-stack 2,000-cfm system with two nominal 1,000-cfm blowers. The filter housings are manufactured from 14-gauge T-304 stainless steel, adequately reinforced to withstand a negative or positive pressure of 10-in water gauge. The locally mounted stack penetrates the Lag Storage Area-4 weather structure before discharging ventilation air to the atmosphere. DOE intends for this facility to be removed during the contract period.

Waste Packaging Area (WPA)

The Waste Packaging Area is used to assist in the sorting of waste boxes and drums. The facility contains box tippers, sorting areas, a drum crusher, a weigh station, a box inspection area, a walk behind forklift, a clip and lid removal station, and an air compressor and air purification skid. It has 5 airlocks (used for waste in, waste out, waste to and from the Container Sorting and Packaging Facility, and two for personnel entry. It measures 40 feet by 56 feet. Its construction is aluminum frame, membrane covering, and multiple windows. The Portable Ventilation Units for this facility are located outside Lag Storage Area-4. DOE intends for this facility to be removed during the contract period.

53. → At LSA-3 point out waste storage. Exit LSA-3. Point out Old/New Hardstand and LSA-2 Hardstand. Look inside LSA-1 and LSB. Exit LAG system

Lag Storage Area - 3 (LSA-3)
This is Lag Storage Area-3. It is used for the storage of Low Level Waste and mixed wastes. Lag Storage Area-3, like Lag Storage Area-4, is a clear span steel framed metal building 88 feet wide by 291 feet long and 40 feet high on a 7 inch thick concrete slab with curbs 6 inched high around the inside perimeter. DOE intends for this facility to be removed during the contract period.

53a. →Exit LSA-3. Point out Old/New Hardstand

Hardstand Storage Areas
The area to your near right is the Hardstand Storage Area. Rebuilt as a compacted gravel pad in 1986 it is currently used for storage of low-level non-liquid radioactive waste. Under Nuclear Fuel Services, this area was paved asphalt used for radioactive equipment storage. DOE intends for this facility to be removed during the contract period.

53b. →Walk a short distance toward the north and point out LSA-2 Hardstand. Turn around and walk south on the roadway.

Lag Storage Area - 2 (LSA-2) Hardstand
This area before you is the Lag Storage Area-2 Hardstand. It is used for the storage of Low Level Waste and mixed waste. The hardstand is 8-inch thick crushed stone covering an area of 65 feet by 200 feet. DOE intends for this facility to be removed during the contract period.

53c. →Walk towards the SSPF and look inside LSA-1 and LSB.

Lag Storage Area -1 (LSA-1)
This tent is Lag Storage Area -1. It was used to store boxes of radiological wastes. Lag Storage Area-1 is a pre-engineered steel frame and fabric structure that measures 191 feet long by 55 feet wide by 23 feet high. The floor is compacted gravel with a concrete pad aisle way. This facility may be removed prior to award of this contract. If not, DOE intends for this facility to be removed during the contract period.

Lag Storage Building (LSB)
This structure is the Lag Storage Building. It was used for the storage of Low Level Waste, Transuranic mixed wastes, and PCB wastes. It is a clear-span engineered metal structure 60 feet wide by 140 feet long having a concrete slab with an integral 6-inch high curb. This facility may be removed prior to award of this contract. If not, DOE intends for this facility to be removed during the contract period.

54. → Walk to SSPF. Turn in tour Lag Facility ED and safety vests. Collect general tour ED.

Sample Storage and Packaging Facility (SSPF)
This is the Sample Storage and Packaging Facility. It is used for the storage and preparation of radiological samples for shipping (for analysis). It is a metal sided

structure on a concrete pad, and is located south of the Lag Storage Building. This facility may be removed prior to award of this contract. If not, DOE intends for this facility to be removed during the contract period.

54a.→ Exit Lag Area via roped boundary in front of SSPF. Turn in tour Lag Facility ED and safety vests and collect general tour EDs from waiting Rad Tech. Rad Tech should also sign the group out of the visitor's log.

55. → Walk towards the PVS Building. Point out the Waste Tank Farm, Mob Pump Vaults and Haz Waste Storage Lockers.

High Level Waste Tank Pump Storage Vaults

These two concrete containers are the High Level Waste Tank Pump Storage Vaults. Inoperable high level waste pumps rest in steel boxes inside the 50 foot long concrete storage vaults. During the contract period, it is DOE's intent that the waste be removed and disposed, and the vaults removed.

Hazardous Waste Storage Lockers

These four small buildings to our right are the Hazardous Waste Storage Lockers, used for the storage of hazardous wastes. Each pre-engineered structure measuring 8 feet by 15 feet by 8 feet high can hold up to a total waste volume of 440 pounds. Wastes in these lockers are packaged in 55 gallon drums and 5 gallon pails. DOE intends for this facility to be removed during the contract period.

55a.→ Enter the PVS Building via the old High Level Waste Transfer System Control Station.

We must card into this area to avoid setting off a security alarm, so please wait for me to badge us in. Once the door opens, please move through it quickly, as it can only remain open for a few moments.

Permanent Ventilation System Building (PVS)

This is the Permanent Ventilation System Building. The Permanent Ventilation System building houses the former Control Station for the High Level Waste Transfer System (where we are now) with its programmable logic controller that operated the sludge mobilization and wash system; the electrical room (behind the door) with motor control centers and variable frequency drives for the Waste Tank Farm sludge mobilization pumps and High Level Waste transfer; ventilation system for the waste tanks (next door that we will not enter); and a room containing the standby power diesel generator DOE intends for this facility to remain operational during the contract period.

We will now walk through the Supernatant Treatment System Ventilation and Supply Building Air Compressor and Standby Diesel Generator Room.

→ Walk through room, and exit the same door.

We must card out of this area to avoid setting off a security alarm, so please wait for me to badge us out. Once the door opens, please move through it quickly, as it can only remain open for a few moments.

55b.→ Exit the PVS Building, walk towards the north, and enter the STS V&S Building Compressor/Generator Room.

56. → Walk through the STS V&S Building Compressor/Generator Room and exit through the double doors at the northwest part of the room, walk up the stairs to enter the STS Building. At the top of the stairs, point out the concrete vaults on the hardstand, storage tent and boxes, east side of WTF, and CPC-WSA.

Vitrification Vault and Empty Container Hardstand

From this location we have a good view of a few other areas. On the other side of the road and extending towards the north is the Vitrification Vault and Empty Container Hardstand. It is used for the storage of radiological waste removed from the Vitrification Facility and Process Building during decontamination and deactivation activities. It is also used as a empty container storage area The hardstand is a compacted gravel pad containing four pre-fabricated concrete vaults containing packaged Low Level Waste and Remote Handled-Transuranic wastes. The two storage vaults for the High Level Waste tank mobilization pumps are also considered to be part of this larger hardstand. During the contract period, it is DOE's intent that the waste be removed and disposed, and the vaults removed.

Chemical Process Cell Waste Storage Area (CPC-WSA)

Beyond the Vitrification Vault and Empty Container Hardstand, further to the north, is the Chemical Process Cell Waste Storage Area. It is used for the storage of packaged radiological wastes removed from the Chemical Process Cell and for mixed wastes. An interior view of that facility was shown during the tour overview presentation. It is a Quonset type structure of galvanized metal 65 feet wide by 201 feet long by 25 feet high with a gravel surface below it. During the contract period, it is DOE's intent that the waste be removed and disposed, and the facility removed.

High Level Waste Tank Farm (WTF)

We are now standing at the east side of the High Level Waste Tank Farm. The Waste Tank Farm was historically used for the storage of liquid high level waste from fuel reprocessing operations. Under the West Valley Demonstration Project, the Waste Tank Farm was used for the storage and treatment of liquid high level waste feeds for the Cement Solidification System and the Vitrification Facility. There are two 750,000 gallon carbon steel tanks (8D-1 and 8D-2) in separate concrete vaults equipped with leak detection equipment (point to the area). Steel trusses span across the tanks to support the mobilization pumps, associated structures, and equipment. There are also two 15,000 gallon stainless steel tanks (8D-3 and 8D-4) that share a common concrete vault in this area (point to area). An underground pipe trench and four pump pits containing waste transfer lines; pumps; and valve pits which connect the Waste Tank Farm with the Vitrification Facility. There are out-of-service condensers located outside of the Equipment Shelter in the southern portion of the Waste Tank Farm. Inside the Equipment Shelter there are out-of-service ventilation blowers, filters, and associated ventilation equipment. Additionally, the Waste Tank Farm contains a Permanent Ventilation Building (the one we just passed), enclosures, storage tents, and containment structures.

We will now enter the Supernatant Treatment System Building.

57. → Walk to the STS Building. Move into column loading area.

Supernatant Treatment System Support Building (STS)

The Supernatant Treatment System Support Building is a two-story structure containing equipment and auxiliary support systems needed to operate the Supernatant Treatment System. Tank 8D-2 supernatant was treated through ion exchange columns located in Tank 8D-1. The treated supernatant was then transferred to the Liquid Waste Treatment System. The building is constructed of concrete, concrete block, steel framing, metal siding and metal roof and it is located adjacent to Tank 8D-1.

We are currently standing in the Column Loading Aisle which was used to load sand and treatment media into the ion exchange columns in 8D-1 through the ports to your left.

58. → Move to PCM area at the top of the STS Valve Aisle Steps.

We will be heading into the Supernatant Treatment System Valve Aisle in the lower level of this building. At the bottom of these stairs is an airlock. There is room for only a few people at a time in the airlock, so we will enter in small groups. Once in the airlock, each group must close the first door completely before opening the second to make sure negative pressure is maintained. If both doors are open at the same time, a security alarm will be activated.

59. → Walk down steps to STS valve aisle.

This is the Supernatant Treatment System Valve Aisle. In the valve aisle, there are four shield windows and seven remote manipulators. The manipulators were used to remotely operate Supernatant Treatment System valves and equipment. There is a hatchway in the southwest end of the aisle that connects this aisle to the floor above for equipment change-out.

We must exit this area the same way we entered; in small groups. Please proceed to the top of the stairs. We will pass through the Personnel Contamination Monitor there. If you have anything requiring a hand frisk, please let me know.

60. → Walk back up steps, exit through PCM.

We must card out of this area to avoid setting off an alarm, so please wait for me to badge us out. Once it opens, please move through the door quickly, as it can only remain open for a few moments.

61. → Go down the stairs and walk across to the RHWF Receiving Area (make prior arrangement with Shift Supervisor for entering)

<u>Remote Handled Waste Facility (RHWF)</u>

The building we are currently walking to is the Remote Handled Waste Facility. It was completed in 2004 to process remote handled wastes, including Low Level Waste, mixed Low Level Waste, Transuranic waste and mixed Transuranic waste. It includes equipment for characterization, processing, and packaging of remote handled wastes. During the contract period, this facility will be available for waste management activities.

DOE intends for this facility to be decontaminated and deactivated by the end of the contract period.

We are going to enter the facility via the Receiving Area and will stop just inside the door for a few moments. We will then exit the facility and reenter in the northeast stairwell.

62. → Go into the RHWF Receiving Area

This is the Receiving Area. The Receiving Area consists of a rectangular shaped weather-protected area that is approximately 27 feet wide by 52 feet long and is primarily used for unloading waste transport vehicles. The floor level of the Receiving Area is 4 feet below the adjacent Buffer Cell floor. Within the Receiving Area there is a commercial grade radio-controlled 20-ton overhead bridge crane, sliding equipment doors, one horizontal swinging contamination control door, and one air control door,that is notched to clear the crane rails. The Receiving Area is part of the pre-engineered portion of the Remote Handled Waste Facility steel and reinforced concrete structure having insulated metal siding and metal roofing; two roof elevations at approximately 25 feet and 45 feet from the concrete floor; two levels of steel grating platforms with ladders for maintenance of the 20-ton bridge crane; and utility air, water, and power.

The Receiving Area has its own ventilation system that operates continuously to maintain the required pressure differential relative to the Buffer Cell.

63. → Before exiting the Receiving Area stop at the Exhaust Ventilation Blower Room.

<u>Exhaust Ventilation Blower Room</u>

The Exhaust Ventilation Blower Room is an isolated space for the two exhaust blowers (one operating, the other in standby) that pull the air from the Work Cell through High Efficiency Particulate Air filters in an ex-cell filter train in the Exhaust Ventilation Filter Room and exhaust filter test equipment to the exhaust stack. The HVAC exhaust stack, anchored to the north side of the Remote Handled Waste Facility, penetrates the roof and has a top elevation of approximately 165 feet.

64. → Enter the North Stairs and proceed into the area containing the Air Cleaning Units, or Exhaust Ventilation Filter Room.

This is the Exhaust Ventilation Filter Room. There are two redundant air cleaning units sized to accommodate the air filtration needs of the Work Cell which lies on the other side of the wall behind the units. This area provides a suitable space for changing the filters associated with each of these ex-cell air cleaning units. The ex-cell air cleaning units contain two arrays of bag-in/bag-out High Efficiency Particulate Air (HEPA) filters in series. A monorail hoist is provided for movement of equipment and consumables (filters).

The air cleaning units are designed for the bag-in bag-out method of filter replacement. However, the use of in-cell roughing filter banks in the Work Cell reduces the change-out frequency of the ex-cell HEPA filters. Isolation valves are provided upstream and downstream of each air cleaning unit housing.

65. → Move past the Air Cleaning Units to view the Waste Packaging Area.

This is the Waste Packaging Area. The Waste Packaging Area is an area 11 feet long by 20 feet wide by 8 feet high located adjacent to the southeast corner of the Work Cell on the first floor of the Remote Handled Waste Facility. This area provides a confined and shielded space for efficiently transferring filled waste containers out of the Work Cell via the Waste Transfer System.

Sealed transfer ports mounted on top of the Waste Packaging Area provide the physical boundaries necessary to bring material out of the Work Cell area while maintaining the exterior of the shipping package clean.

The Waste Packaging Area is isolated from the Work Cell by a combination of shield walls, Waste Transfer System port covers, and shield covers. Except during load out operations, the shield covers remain closed in place above the Waste Packaging Area in the Work Cell to prevent accumulation of contamination around the transfer ports. Steel shield doors seal off the rear of the Waste Packaging Area from the Survey and Spot Decontamination Area and provide a contamination and radiation control barrier.

Two manually operated reach rods penetrate the Waste Packaging Area east walls. These reach rods are used for radiation probe movement and swipe sampling of containers. A separate mechanism is available to assist in drum outer lid placement and fastening. A viewing window allows operators to make visual observations while performing transfer and swipe sampling operations.

Two transfer systems are installed within the Waste Packaging Area using container transport carts, respectively, mounted on rails. Cart rails extend from the Waste Packaging Area under the transfer ports to the packaging area shield doors. A forklift or a monorail transfer hoist installed on the ceiling of the Survey and Spot Decontamination Area, is used to lift and transport a drum or a drum in a shielded overpack onto and off of the drum transfer cart. The same method may be used to lift B-25 boxes onto and off of the box transfer cart, except box weights exceeding the monorail's lifting capacity are not lifted by the monorail hoist.

The Survey and Spot Decontamination Area provides a space for surveying, spot decontaminating, and overpacking filled waste containers. There is sufficient space to allow a forklift to pick up filled containers. The floor elevation of the Survey and Spot Decontamination Area is at the same elevation as the Load Out/Truck Bay to facilitate moving filled containers to the Load Out/Truck Bay for loading onto vehicles.

A floor drain, which is plugged when not in use, allows washdown of the Waste Packaging Area. Access to the Waste Packaging Area is provided from the Exhaust Ventilation Filter Room, the Radiation Protection Operations Area, and the Load Out/Truck Bay.

66. → Backtrack to the North Stairs and go up to the third floor. Stop at the top landing and read the following TWO tour stop sections (66 and 67). Obtain and utilize hearing protection at the top of the stairs. Move into the Mechanical Equipment Area.

We are about to enter the Mechanical Equipment Area. Air compressors are often running in this area, necessitating the use of hearing protection. The combination of hearing protection and air compressor noise may make it difficult for you to hear

information in this area, so I will cover the information now for the two stops we will make while here. The first stop is the Mechanical Equipment Area itself. The second stop will be the Contact Maintenance Area – Upper Airlock.

The Mechanical Equipment Area is located on the third level of the Remote Handled Waste Facility above the Operating Aisle. This area is steel-framed, insulated, and sheet-metal sided. The Mechanical Equipment Area contains two air compressors with a burn protection cage mounted to the floor and wall and the decontamination system pressurizer. Each compressor has a receiver, dryer, filter, and carbon monoxide monitor and alarm associated with it. One compressor can meet all nominal utility air, instrument air, and breathing air supply requirements. The decontamination system pressurizer increases and regulates the pressure supplied to the RHWF decontamination system. Fire protection and utility piping reach this area through a utility chase.

67. → Move to the Contact Maintenance Area - Upper Level Airlock (Do not try to read this section again while in the Mechanical Equipment Aisle.)

The Contact Maintenance Area Upper Level Airlock is located at the south end of the Mechanical Equipment Area. The Contact Maintenance Area, itself, is a space approximately 22 feet wide by 15 feet long by 37 feet high. It provides a shielded area adjacent to the Work Cell where personnel can perform maintenance on the cranes, powered dexterous manipulators, and other Work Cell equipment. The Contact Maintenance Area is constructed of reinforced concrete.

The Contact Maintenance Area has two main floor levels: the lower level is located on the first floor of the building, while the upper level is located on the third floor. The roof is comprised of reinforced concrete and includes a weather-tight roof hatch to allow equipment replacement and access. In addition to the main floor levels, two intermediate level platforms composed of structural steel grating are provided for access and maintenance of the cranes' telescoping manipulator tubes. The cranes enter the maintenance area through slotted openings at the end of the Work Cell. Shield doors and air control doors provide a barrier between the maintenance and work area. Ladders extending through openings in each intermediate level platform and the third (upper) level provide worker access to all levels inside the Contact Maintenance Area without exiting the area. Personnel access to the first level is provided by a double airlock between the Contact Maintenance Area and the Radiation Protection Operations area. At this, the top level, a second double airlock access is provided from this small room adjacent to the Mechanical Equipment Area.

On the first level, a stainless-steel lined space is provided for liquid waste transfer/recirculation pumps and valves, storage shelves, and a work bench. A floor drain allows drainage of washdown water to the washdown collection tanks, which are located below the floor of the Contact Maintenance area in the Drain Tank Collection Vault. Access to the tank vault is provided by a 4 feet square access hatch and a rung ladder to the floor below. The vault floor and walls are lined with stainless steel. The Drain Tank Collection Vault contains the Work Cell Washdown Receiving Tank, Buffer Cell/Contact Maintenance Area Washdown Receiving Tank, and Batch Transfer Tank.

The upper level floor is composed of reinforced concrete in the eastern portion and steel framed construction in the western portion. A slotted opening is provided in the floor to allow maintenance on all sides of the telescoping tubes. The floor at this level is stainless steel lined and has floor drains to capture bridge crane and powered dexterous

manipulator washdown water. A bridge mounted maintenance hoist of 5-ton capacity is located above the bridge crane to assist with removal of crane components and for handling heavy items.

68. → Backtrack down the aisle to the North Stairs and down to the north end of the Operating Aisle.

You are now in the operating aisle. We will also stop at the Buffer Cell viewing window, an operating aisle window and the sample storage window.

The Operating Aisle is outside the Work Cell and Buffer Cell on the second floor of the Remote Handled Waste Facility that provides a clean, shielded space for remotely operating facility equipment. The Operating Aisle has a clear space area approximately 14 feet wide by 98 feet long, and a clear ceiling height of approximately 12 feet. Three shield windows are installed in the Operating Aisle wall. Two of the windows provide views into the Work Cell while a third window provides a view into the Buffer Cell. An additional shield window is provided in the Sample Packaging and Screening Area that permits a view down the entire length of the Work Cell. Operator work stations are available at the two shield windows located in the east Work Cell wall. A frame with a concrete shield plug is provided in the Operating Aisle wall as a port for radiological assay of waste items. Preliminary radiological waste analysis is performed in the Work Cell through the port. Motor control centers (MCCs) and instrumentation cabinets are also located in the Operating Aisle. A roll-up door and a platform in the east wall leading into the Load Out/Truck Bay are provided to facilitate master slave manipulator (MSM) installation and removal, and movement of equipment to and from the Operating Aisle. From the Operating Aisle, access is provided to the Utility Chase and the Sample Packaging and Screening Area.

69. → Move to the Buffer Cell Viewing Window.

This is the Buffer Cell Viewing Window. The Buffer Cell, which is 22 feet long by 22 feet wide by 37 feet tall, provides a ventilation confinement boundary between the normally uncontaminated Receiving Area and the contaminated Work Cell. This cell allows radiologically controlled movement of waste containers and other materials into the Work Cell with some shielding provided. The Buffer Cell may also be used as a radiologically controlled area for contact-handled operations such as surveying waste containers, repackaging, sampling, waste stabilization or removing waste containers when radiological conditions do not mandate remote handling operations. The Buffer Cell has sufficient space to accommodate the containers currently planned for processing in the Remote Handled Waste Facility, with the exception of the Waste Tank Farm transfer pumps and mobilization pump boxes.

The Buffer Cell walls, floor, and roof are constructed of shielded, reinforced concrete, sealed to facilitate cleanup and decontamination. The wall thickness is approximately 2.5 feet, while the roof thickness is approximately 1 foot. A pre-engineered sloped steel roof, erected above the concrete roof of the Buffer Cell, provides drainage. The cell is equipped with a powered roller system and shares the radio-controlled, 20-ton overhead bridge crane with the Receiving Area. The floor of the Buffer Cell is at the same level as the floor of the Work Cell to allow waste containers to be remotely moved inside using the powered roller system. The powered roller system employs floor mounted roller units and a motor driven ball screw drive to move waste containers between the Receiving Area, Buffer Cell, and Work Cell.

Personnel access to the Buffer Cell is accomplished on the first level by means of a double air lock located on the east side of the cell. This shielded window allows direct observation of operations within the Buffer Cell. Closed-circuit television cameras are used to monitor areas not viewable from the window. At the north end of the cell, shielded sliding equipment doors, a horizontal swinging contamination control door, and an air control door (notched to clear the crane rails) separate the Buffer Cell from the Receiving Area. The south end of the Buffer Cell is separated from the Work Cell by sliding shield doors (two levels high), a horizontal swinging contamination control door, and an air control door (notched to clear the crane rails). Operating mechanisms for the sliding shield door, contamination control door, and air control door interfaces between the Buffer Cell and the Work Cell are located inside the Buffer Cell for ease of accessibility and maintenance.

There are sealed curbs on the floor between the Receiving Area and the Buffer Cell, and between the Buffer Cell and the Work Cell, to prevent the spread of contaminated liquids between adjacent areas. A washdown collection trench and drain system is provided in the floor slab running in the north-south direction of the Buffer Cell. The floor of the cell is sloped toward the trench to direct waste liquids, while the trench itself is sloped towards a drain in the south end of the Buffer Cell. The trench is stainless steel lined for ease of decontamination. The drain hub contains a replaceable stainless steel screen within a cartridge that is designed to filter particulates.

70. → Continue down the Operating Aisle and to the second of two Work Cell Viewing Windows

The Work Cell is a shielded space approximately 55 feet long by 22 feet wide by 37 feet high. It is 26 feet high to the bridge crane rail supports. The Work Cell is the primary work zone within the Remote Handled Waste Facility for fully remote handling, surveying, size reducing, decontaminating, and repackaging operations. The Work Cell walls, floor, and roof are constructed of reinforced concrete. The wall thickness is approximately 2.5 feet, while the roof thickness is approximately 1 foot. A pre-engineered sloped steel roof, erected above the concrete roof of the Work Cell, provides drainage. The floor and the lower portion of the Work Cell walls are lined with stainless steel to facilitate decontamination efforts. Sufficient space is provided to work on the largest and longest waste boxes, including the 55 feet long Waste Tank Farm transfer and mobilization pump boxes.

At the north end of the Work Cell are sliding shield doors (two levels high), a horizontal swinging contamination control door, and an air control door (notched to clear the crane rails) which provide a means for waste transfer and bridge crane passage between the Work Cell and the Buffer Cell. At the south end of the Work Cell are a sliding shield door and an air control door (notched to clear the crane rails) which separate the Work Cell from the Contact Maintenance Area and provide a means for bridge crane passage.

Crane rails, designed for a 30-ton capacity crane, extend the full length of the Work Cell. Two bridge cranes are provided. One bridge crane designed for a 30-ton load is provided with a 30-ton cable hoist. The other Work Cell bridge crane is provided with two telescoping masts, both with 3-ton capacity. The telescoping masts, supported by separate bridge crane trolleys, are capable of utilizing various tools. One 3-ton wall-mounted jib crane with a telescoping mast is also provided and can be moved on a rail along the length of the east cell wall. The jib crane and bridge crane are used for

handling of material throughout the cell. In addition, various interchangeable tools can be fitted on the powered dexterous manipulators for cutting and grappling. Some of this equipment is hydraulically powered. The powered dexterous manipulators and cranes are used to operate a full range of fixtures and tools for handling, surveying, sampling, size reducing, and repackaging waste.

The floor of the Work Cell is at the same level as the floor of the Buffer Cell to allow waste containers to be remotely moved inside using conveyors. The conveyor system employs floor mounted roller units and a motor driven ball screw drive to stage incoming waste containers adjacent to adjustable work platforms. The two work platforms allow simultaneous waste processing operations, at work stations located behind two shield windows in the Operating Aisle wall. Work stations utilize the cranes with powered dexterous manipulators to position and support the tools used to inspect, sample, and cut the waste items for packaging. In addition to the shield windows, close circuit television cameras and monitors are available to view and record operations in the Work Cell.

Additional space is available in the Work Cell for staging incoming waste containers and for temporary storage of waste disposal container liners. Filled container liners are transferred from the Work Cell to the shielded and enclosed Waste Packaging Area via the Waste Transfer System. The Waste Transfer System is designed to minimize the spread of contamination from the Work Cell to the Waste Packaging Area.

A washdown collection trench and drain system is provided in the floor slab running in the north-south direction of the Work Cell. The floor of the cell is sloped toward the trench to direct waste liquids, while the trench itself is sloped toward its drain at the south end of the cell. The trench is stainless steel lined for ease of decontamination. The drain hub contains a stainless steel screen within a filter cartridge that is designed to remove particulates. Filter cartridges can be remotely removed using the powered dexterous manipulators from the Work Cell equipment to permit replacement of filter screens.

In-cell exhaust ventilation system filter banks are placed in strategic locations within the Work Cell. Each of the four filter banks contains six filter housings, and each filter housing contains one medium efficiency filter and one high efficiency filter. The location of these first stages of filtration near the source of airborne contamination helps confine the majority of the contamination within the Work Cell.

On the Work Cell wall opposite the Operating Aisle, two 20 feet long by 24 feet high "knock-out" sections allow for the addition of Expansion Modules. Removable stainless steel lined wall panels serve as an inner confinement barrier until an Expansion Module is installed. Shielding for these "knock-out" sections is provided by an externally removable shield wall consisting of reinforced precast concrete sections.

71. → Continue down the Operating Aisle and to the Sample Packaging and Screening Area Window

This is the Sample Packaging and Screening Area. It is used to support waste analysis by providing the capability to transfer swipes and sample bottles into the Work Cell, to remove samples from the Work Cell, and to place samples in containers for transfer to a laboratory for analysis. A shield window is located in this area to allow operators to view the Work Cell, and a powered dexterous manipulator controller and work station

controller are provided to permit remote sample transfer operations. A sample shelf is located in the Work Cell below the sample transfer drawer, which is mounted inside the shield wall. Samples are removed from the transfer drawer inside a sample transfer glove box. The packaged sample can be manually transferred to the Radiation Protection Operations Area on the first level, where it may be surveyed and released to a laboratory facility for analysis. Samples can also be prescreened and counted for gross Beta and gross Alpha activity with counting equipment available in the Operating Aisle. Continuous Air Monitors and Area Radiation Monitors are located in the area.

Before we leave this area, I would like to discuss several other areas of the Remote Handled Waste Facility that we will not be touring today.

Office Area

The Office Area is an extension on the south side of the facility. This area provides a clean, low dose-rate area to perform administrative functions. This area is a pre-engineered clear span steel-framed structure with insulated siding and roofing. The Office Area consists of two stories and contains the shift supervisor's office, crew offices, meeting rooms, a kitchenette, and sanitary facilities.

Radiation Protection Operations Area

The Radiation Protection Operations Area, located on the first floor, is used to analyze swipes taken from the Waste Packaging Area (and other areas of the Remote Handled Waste Facility as necessary), and to provide other radiological support services as needed.

72. → Exit the operating aisle down the south stairs to the PCM.

We will pass through the Personnel Contamination Monitor to leave this building. As before, if you have anything requiring a hand frisk, please let me know.

We must card out of this area to avoid setting off an alarm, so please wait for me to badge us out. Once it opens, please move through the door quickly, as it can only remain open for a few moments.

73. → Exit RHWF. Enter the Load Out/Truck Bay through the South Door

This is the Load Out/Truck Bay. It is this extension on the east side of the Remote Handled Waste Facility that provides a weather-enclosed structure to support loading of filled waste containers onto transport vehicles and transfer of empty waste containers into the facility. This area is a clear span pre-engineered metal structure with a metal wall and roof system and is approximately 60 feet long by 50 feet wide. The long axis of the Load Out/Truck Bay is oriented in the north-south direction. The Load Out/Truck Bay is positioned such that the center bay is aligned with the Waste Packaging Area.

Access to the Load Out/Truck Bay is through three roll-up doors and three personnel doors provided on the north, east, and south sides. One additional roll-up door is provided on the west side for access and movement of waste containers into and out of the Waste Packaging Area.

74. → Exit Load Out/Truck Bay. Point out Fab Shop, and view of the site looking Southeast. Call the Van Driver.

We are now heading southeast toward the Vitrification Facility.

Construction Fabrication Shop

This is the Construction Fabrication Shop. It has been used for site maintenance and construction support. It is a 40 feet by 100 feet steel building on a concrete foundation that is currently being used to store equipment for the Remote Handled Waste Facility. It was previously used a fabrication shop during the construction of both the Remote Handle Waste Facility and the Vitrification Facility. This facility may be removed prior to award of this contract. If not, DOE intends for this facility to be removed during the contract period.

75. → Walk to west side of Waste Tank Farm and over to the Vitrification Facility. Point out the Waste Tank Farm including the Equipment Shelter and then the Diesel Fuel Oil Building.

Vitrification Diesel Fuel Oil Storage Tank & Building

This building is the Vitrification Diesel Fuel Oil Storage Tank & Building (or Diesel Fuel Oil Building). Diesel fuel oil for the Vitrification Facility diesel generator is stored in a 7,450 gallon tank within a below-grade concrete vault covered by this metal building; about two stories tall and 15 feet by 22 feet in area. DOE intends for this facility to be removed during the contract period.

76. → Enter the Load In/Load Out Facility north door and go up the stairs to the Vit Crane Room.

Load In/Load Out Facility

This is the Load In/Load Out Facility. Access to the Equipment Decontamination Room in the Main Plant Process Building is from this facility. It was used to deliver empty High Level Waste canisters to the Vitrification Cell via the Equipment Decontamination Room and Vitrification Tunnel, as well as removal of Vitrification Facility cell components. It is now primarily used for contaminated equipment removal from the Equipment Decontamination Room and loading waste boxes into intermodals in preparation for shipping. It is a steel-framed building. Its future use will be for load-out of the High Level Waste canisters from the High Level Waste Interim Storage Facility. The foundation and structural steel were designed to support the eventual load out of the high level waste canisters. You will also note that the facility currently contains a 15-ton bridge crane. DOE intends for this facility to remain operational throughout the contract period.

Vitrification Facility

The areas that we will now observe are related to the Vitrification Facility. The Vitrification Facility designed, constructed, and used for the solidification of liquid High Level Waste is currently not in use. During the contract period, this facility will be available for waste management activities. DOE intends for this facility to be decontaminated and deactivated by the end of the contract period.

The Vitrification Facility is a structural steel framed reinforced concrete and sheet metal building that contains the Vitrification Cell, a Crane Maintenance Room, a secondary filter room, a diesel generator room, operating aisles, truck locks, and a control room. The work cell has six lead glass shield windows, a closed circuit TV system, an uninterruptible power system, a fire detection and protection systems, and a radiation monitoring system. The major work cell components have been removed. However, a contaminated robotic manipulator (Brokk) is stored in the 15 feet deep pit located in the north end of the cell. The cell is supported by several sets of wall mounted manipulators, transfer drawers, three primary ventilation exhaust filters, a pneumatic sample transfer system, a 25 ton bridge crane with two 4.5 ton hoists, a bridge crane configured with dual telescoping robotic arms, shield doors from the Equipment Decontamination Room and Crane Maintenance Room, roof hatch, several in-cell lights, and transfer cart.

The crane maintenance room has one lead glass shield window with a set of wall mounted manipulators from the Crane Maintenance Operating Aisle, a shield door and airlock access from the Crane Maintenance Operating Aisle, and a 10 ton maintenance crane.

This is the Vitrification Crane Maintenance Room Operating Aisle. Through this shield window, you can see a crane and robotic arms, which can be used in the Vitrification Work Cell.

77. → Enter Vit via LIF/LOF stairs. Tour Vit Facility (Aisles, Control Room) and exit at top of stairs through the west door leading to the catwalk.

This building is the Vitrification Facility proper. We are going to enter the facility on the third floor and go down one level to the Middle Operating Aisles to allow you to view the Vitrification Cell.

78. → Go to Middle North Operating Aisle

We are at the Middle Operating Aisles. You are welcome to look through the shield windows in the Middle West Operating Aisle or the Middle North Operating Aisle, but please do not touch anything.

Through this door is the Middle West Operating Aisle. We will now go back down the stairs to the first floor, or Lower Operating Aisles.

79. → Go to Lower Operating Aisles via the Northeast staris, exit through Lower West Operating Aisle, past the Condensate Pump Room and the Radiological Monitoring Room, to the Secondary Filter Room

This is the Condensate Pump Room.

This is the Radiological Monitoring Room.

→ Open the door. This is the Secondary Filter Room.

→ Point This is where the Diesel Generator Room is located.

We will now pass back over to the Lower Operating Aisles to go through the Personnel Contamination Monitor and up the stairs to the Control Room. If you have anything requiring a hand frisk please let me know.

80. → Go back to Lower West Operating Aisle, use PCM, and proceed up stairs to the Control Room

This is the Vitrification Facility Control Room. Next, we will go to the Vitrification Cold Chemical Facility.

81. → Take the catwalk over to the 2nd floor of the Cold Chemical Facility. Stop on second floor, read script then continue to walk through and down the stairs to exit the Cold Chem.

Cold Chemical Facility

This is the second floor of the Vitrification Cold Chemical Facility. We will go down the stairs. Please be careful on the stairs. At the bottom, you can look though the door to see the first floor of the Cold Chemical Facility that contains the cold chemical storage and transfer tanks and pneumatic and steam transfer systems used during the vitrification process. It now has no use. The steel frame metal-sided building is 56 feet long by 34 feet wide with a concrete foundation and concrete walls extending to an average height of 2 feet. This facility may be removed prior to award of the contract. If not, DOE intends for this facility to be removed during the contract period.

82. → Walk to in front of the Main Plant Process Building and offer the opportunity to take a quick break.

83. → Point out 01-14 Building, (north door to east room [01-14 cell access], up stairs through each floor, out 4th floor door to look out over site)

01-14 Building

This is the 01-14 Building. Currently, the Cement Solidification System is configured to support mixed waste solidification (most recently the Sodium Bearing Waste Water). The building also contains the Vitrification Facility Off-Gas Treatment System components such as heaters, catalytic reactors, and HEPA filters that were used in the Vitrification Facility Off Gas Treatment System. DOE intends for this facility to be removed during the contract period. Historically, Nuclear Fuel Services constructed this building in 1970-1971 to replace existing systems. It contained an Acid Fractionator Cell, Off-Gas Treatment Cell, and iodine removal equipment, but was never used. The WVDP retrofitted the building to support stabilization of the High Level Waste tank supernatant into cement drums by installing the Cement Solidification System. . .

The 01-14 Building measures 41 feet by 33 feet by 60 feet high. The service area outside walls are 12-inch thick concrete block. The building also contains 2 foot thick reinforced concrete shielding walls and pad. There is one lead glass shield window in the work area, which we will see shortly. This room provides access to the 01-14 Cell. The cell floor is covered by a 1/8 inch thick stainless steel liner that extends 1 foot 6 inches up the side of the walls. We will walk through each level to allow you to see the remainder of the facility. Through this door you can look out over the southern part of the site.

We will now return to the first floor, passing through the Personnel Contamination Monitor. Remember to notify me if you need to hand frisk anything. Also, please remember to wait for me before heading outside as we must card out of this facility.

84. → Go to old CSS Control Room/SBW area

This is the Control Room that was used to complete the solidification of the Sodium Bearing Waste Water in the work area at the other side of that window. Next, we will go to the Liquid Waste Treatment System Control Room.

85. → Go to Liquid Waste Treatment System Control Room and card in the west door walk around and card out at the south door.

This is the Liquid Waste Treatment System Control Room.

86. → Walk around to a point in front of the UR. Point out the Water Storage Tank, the Fire Pump Station, the Emergency Van Shelter, Clarifier/Clearwell, Demin Water Tank, and the Cooling Tower. Enter the UR through south door, walk through and exit the east door and head over to the Equalization (EQ) Basin.

Fire Pump Station
The small red building before you is the Fire Pump Station. It provides weather protection for the plant's fire water system pumps and associated equipment and storage for various fire fighting equipment. It is a single story steel frame building with corrugated metal siding and metal roof that includes an emergency diesel fuel oil powered pump and its 290 gallon capacity diesel fuel oil day tank. DOE intends for this facility to be operational throughout the contract period.

Water Storage Tank
The large blue tank to your left is the Water Storage Tank. It has a capacity of 475,000 gallons of treated lake water, 300,000 gallons of which is reserved for fire fighting. DOE intends for this facility to be operational throughout the contract period.

Emergency Vehicle Shelter
The tan-colored building immediately before you is the Emergency Vehicle Shelter where the site emergency vehicle is kept. It is a 30 feet by 47 feet long steel framed structure with corrugated metal siding and metal roof. It is DOE's intent that this facility is removed during the contract period.

Clarifier/Clearwell and Demin Water Tank
The tank structures to the far right are the clarifier/clearwell for processing our raw water form the site reservoirs and the demin water storage tank.

Cooling Tower
Across the road, is the Cooling Tower.

Next, we will head to the Utility Room. From the Utility Room, we will pass into the Utility Room Extension, past the Switch Gear Room, and back outside.

87. → Go to the Utility Room and Utility Room Extension. From the Utility Room, to Utility Room Extension, and back outside via east door.

Utility Room (UR)

This is the Utility Room. It is considered to be part of the Main Plant Process Building. It provides utilities to the Main Plant Process Building and the remainder of the site areas. It contains equipment for supplying utility water, demin water, and potable water, steam, and compressed air to the plant. In particular, there is one standby power generator, one air compressor, pumps for cooling water and boiler feed water, a demineralizer, sand filters, zeolite softeners, compressed air surge tanks, a potable water tank, chemical feed tanks, and metering pumps for chemical feed. Support equipment located outside includes condensate return tanks, the main water storage tank, the demineralized water storage tank, the clarifier/clearwell, fuel oil tank, and the cooling tower. The Utility Room is a steel frame and concrete block construction and is located at the south end of the Main Plant Process Building. The concrete slab floor includes concrete foundations under individual equipment. The south, east, and west walls are 8-inch concrete block. The north wall, common with the Process Plant, is 8-inch reinforced concrete. The roof is metal decking with insulation and built-up roofing.

Utility Room Extension (URE)

This is the Utility Room Extension. It is also considered to be part of the Main Plant Process Building. The two dual-fueled (natural gas and Diesel fuel oil) steam boilers, standby power diesel generator with day tank, and two electric air compressor are located here to support the site's steam, power, and air needs. This concrete block building on a concrete slab is located east of the Utility Room.

The door on the left leads to the Switch Gear Room. Just outside the north wall of this room there is another step down transformer.

We will now go outside and head toward the Equalization Basin.

88. → Card out. Continue south along the jersey bouncers to the road. Turn left on the road and walk to a point across from the Road Salt and Sand Storage Shed

Road-Salt and Sand Storage Shed

In front of you is the Road-Salt and Sand Storage Shed. The wooden structure measuring 20 feet by 22 feet has a storage bin and sand stall and a floor of blacktop over 10" of stone. DOE intends for this facility to be removed during the contract period.

89. → Cross east over the street and stop in front of the Solvent Dike.

Solvent Dike

This is the area known as the Solvent Dike. It acted as a holding pond; receiving radioactive Tri-Butyl Phosphate and n-dodecane contaminated spills, leaks, and roof runoff from the plant Solvent Storage Terrace via a floor drain and underground piping until it was removed from service in 1987. Built in 1966, it measured 40 feet by 50 feet by 4 feet deep and was roughly D-shaped. The bermed, unlined basin partially excavated into the Sand and Gravel layer was located 200 feet east of the Main Plant Process Building and 80 feet north of the north demineralizer sludge pond. The original design had no outlet and relied on evaporation or seepage to reduce its contents. Low-

level radiological sediments were excavated from this area in 1987. Then the area was backfilled. It currently has no use. DOE intends for this facility to be removed during the contract period.

90. → Continue down the EQ Basin road to a point adjacent to B-UT-05.

Demineralizer Sludge Ponds

The former Demineralizer Sludge Ponds are located in the area directly behind these bushes. They received backflush solutions from the plant process water demineralizer, softener, and clarifier. They have been inactive since 1994. They were originally constructed between 1964 and 1966. The Sludge Ponds included two unlined ponds located approximately 150 feet southeast of the Main Plant Process Building and due east of the Road-Salt and Sand Storage Shed. Each measures 50 feet by 100 feet by 5 feet deep, with the east end slightly deeper than the west. There was a headwall and drain pipe located at the east end of each. They discharged through a weir box and underground piping to State Pollution Discharge Elimination System-permitted outfall 005. They are typically wet and vegetated. No further action is planned for this facility during the contract period.

This area contains the Equalization Basin and Equalization Tank associated with the Wastewater Treatment Facility.

91. → Move to the north side of the EQ Basin, adjacent to the EQ Tank.

Equalization Basin

The Equalization Basin, or Effluent Mixing Basin formerly received Utility Room liquids (e.g. clarifier blowdown) and treated sewage flow diverted from the Waste Water Treatment Facility, should an upset occur in the Waste Water Treatment Facility. It now receives clarifier blowdown (serving as a replacement for the demineralizer sludge ponds). Constructed in 1985, it is 50 feet wide by 125 feet long by 6 feet deep basin with a Hypalon® liner, excavated into the Sand and Gravel layer, and underlain by a sand drain. It is located east of the Demineralizer Sludge Ponds (or approximately 300 foot east of the old warehouse and 650 foot southeast of the Main Plant Process Building. DOE intends for this facility to be removed during the contract period.

Equalization Tank

The Equalization Tank receives Utility Room wastewater (e.g. sand filter backwash, the alkaline part of the demineralizer regeneration, and clarifier blowdown). It is a covered 20,000 gallon underground concrete tank that serves as the replacement to the Equalization Basin. It is located near the north end of the Equalization Basin. DOE intends for this facility to be removed during the contract period.

92. → Move to the southwest corner of the EQ Basin. Point toward the Test Towers while talking.

Waste Tank Farm (WTF) Training/Test Platforms

From here, you can also see the Waste Tank Farm Training/Test Platforms to the west. The Waste Tank Farm Training/Test Platforms were used to conduct mock-ups, testing, and training for long shafted pumps and equipment destined for installation and use in the High Level Waste Tanks. They have no current use. The north tower measures 16

feet by 16 feet by 57 feet high and the south tower 16 feet by 16 feet by 48 feet high. They are both pre-engineered steel structures. The North Platform may be removed prior to award of this contract. DOE intends for these structures to be removed during the contract period.

93. → From Equalization Basin, go on the road to the north then west. Proceed to the east side of the Main Warehouse.

Old Warehouse

This building to our left is the Main Warehouse. It is used to store spare parts, operating supplies, chemicals, construction materials and clean plant equipment . The insulated metal building has a Counting Lab measuring 40 feet by 32 feet at its north end; three small rooms (each approximately 10 feet by 10 feet) partitioned off for office space and sensitive supply storage; a 10 feet by 14 feet shipping and receiving dock on the west side, a main storage measuring 80 feet by 144 feet, and a rail siding on this eastern side. The building is protected by a dry type sprinkler system supplied by the fire protection main. The total volume of useful storage space is approximately 100,000 cubic feet inside, dock storage space of 10,000 cubic feet, and an outdoor fenced storage area of 10,000 cubic feet. DOE intends for this facility to be removed during the contract period.

A waste paper incinerator formerly sat in this vicinity at the east side of the Main Warehouse on a concrete pad. It was used to incinerate paper and packaging waste between 1970 and 1985. It was removed from this location, disassembled, and placed in on-site storage in 1996. DOE intends for this facility to be removed during the contract period.

94. → Move down the east side of the Main (old) Warehouse to enter the waiting van. Drive north to the road. Turn left (west) and pause in front of the RP Counting Lab.

Counting Lab

This is the northern section of the Main (Old) Warehouse mentioned just a moment ago. Under the WVDP it transitioned from housing blueprint reproduction services to a Radiological Protection Counting Lab. Like the warehouse, it too is corrugated metal with steel frame. DOE intends for this facility to be removed during the contract period.

95. → Turn left between on the road just west of the Cooling Tower. Pause just past the cooling tower, adjacent to the Old STP.

Old Sewage Treatment Plant Facility

Those small in ground vaults are what is left of the site's sanitary wastewater treatment facility that was removed from service in 1985 when the discharge lines were removed and influent lines were capped. The facility was located below grade inside this 12 foot by 22 foot area south of the Cooling Tower. DOE intends for this facility to be removed during the contract period.

96. → Move across the road and stop just before the Above-Ground Petroleum Tanks, adjacent to the Warehouse Bulk Oil Storage Unit.

New Warehouse (Main-2 Warehouse)

The large building on the right is the New Warehouse, or Main-2 Warehouse. It was used for materials storage. It also contained a 90-Day storage area for hazardous wastes, industrial wastes, and materials, batteries, and recyclables. It is a steel building that rests on concrete piers and a poured concrete foundation wall. It measures 80 feet wide by 250 feet long by 21.5 feet high. DOE intends for this facility to be removed during the contract period.

Warehouse Bulk Oil Storage Unit
The small white building in front of the Main-2 Warehouse is the Warehouse Bulk Oil Storage Unit. It is used to store combustibles (i.e., grease, oils, antifreeze, etc.) in one gallon to 55 gallon containers. It is a metal, insulated structure with inside measurements of 11 feet wide by 23 feet long by 6 feet 6 inches high. The insulated walls have a 2 hour fire rating. The doors have a 1.5 hour fire rating. The floor has a removable fiberglass grating located 6" above a catch basin with a sump. DOE intends for this facility to be removed during the contract period.

Above-ground Petroleum Tanks (Tanks 41-D-021 and 41-D-022)
Just to the south of the Warehouse Bulk Oil Storage Unit, stands a pair of above-ground Petroleum Tanks (Tanks 41-D-021 and 41-D-022). The 2000 gallon gas tank and a 1000 gallon diesel tank are contained within an above ground concrete vault with an overfill catch basin DOE intends for this facility to be removed during the contract period.

97. → Move just beyond the petroleum tanks and pause just before the WWTF driveway.

Product Storage Area
On the south end of the Old Warehouse is the area referred to as the Product Storage Area. It has been used in the past for the staging of containerized raw materials and temporary storage of non-hazardous debris. It is currently used only for the temporary storage of non-hazardous debris. It is an open air storage area on an asphalt pad, measuring approximately 20 feet by 60 feet. DOE intends for this facility to be removed during the contract period.

Waste Water Treatment Facility
This building is the Waste Water Treatment Facility. It has been used for the treatment of sanitary wastewaters since 1985, and industrial wastewater since 1994. It is an approximately 55 foot by 105 foot corrugated steel building The facility provides biological treatment (10,000 gallon/day average) of sanitary wastewater. Following biological treatment, effluent is disinfected by chlorination. The facility system consists of grinder stations, an aeration tank, a clarifier, and a baffled tank for chlorination and dechlorination. An upgrade in 1994 allowed the facility to handle non-radiological wastewater treatment. DOE intends for this facility to be removed during the contract period.

98. → Travel to the south past the WWTF. Stop adjacent to the WMSA driveway.

Waste Management Staging Area (WMSA)
Just to the south and west of the Waste Water Treatment Facility, is the Waste Management Staging Area. This area provided storage of industrial wastes, hazardous wastes (90-day), and universal waste. It is approximately a 50 feet by 80 feet area at

the southern end of the New (Main-2) Warehouse. DOE intends for this facility to be removed during the contract period.

99. → Drive south to a point adjacent to the Vitrification Hardstand and stop.

Expanded (or Environmental) Lab Complex

Up the hill toward the west, is the Expanded (or Environmental) Lab Complex. This complex contains lab and office spaces that supported Vitrification cold sample analysis and supports environmental sample analysis. The main building is a 92 feet by 50 feet metal structure, and incorporates three double-wide trailers on a concrete foundation. The complex also includes several supply and storage sheds. DOE intends for this facility to be removed during the contract period.

Vitrification Hardstand

The area to your left (east) alongside the road is referred to as the Vitrification Hardstand. It is a gravel area approximately 150 feet by 220 feet that has been used for outdoor storage of vitrification equipment and other excess equipment. DOE intends for this facility to be removed during the contract period.

100. → Continue south to the Met Tower. Stop at the bend in the road adjacent to the Tower.

Meteorological Tower

This is the site Meteorological Tower. Erected in the mid 1990s this 197 feet high tower continuously monitors wind speed, wind direction, and temperature at both the 197-feet and 33-feet elevations. An independent, remote 33-feet high tower located approximately 5 miles south of the site on a hillcrest on Dutch Hill Road, continuously monitors wind speed and wind direction. Dew point, precipitation, and barometric pressure are also monitored on-site. Both locations supply data to primary digital and analog data acquisition systems located within the Environmental Laboratory. On-site systems are provided with either uninterruptible or standby power in case of site power outage. DOE intends for this facility to be operation throughout the contract period.

101. → Travel east and stop adjacent to the Subcontractor Maintenance Area, in view of the Rail Packaging and Staging Area.

Subcontractor Maintenance Area

The area to your right is referred to as the Subcontractor Maintenance Area. It was historically used for the cleaning of asphalt paving equipment under NFS and until 1991. Since 1991, it has been used for staging heavy equipment and inert construction materials. It is a flat area located west of the Rail Spur, east of the on-site meteorological monitoring tower, along the south side of the roadway. It is compacted stone, and contains several trailers, storage areas, and equipment. DOE intends for this facility to be removed during the contract period.

Rail Spur

The 1.6 mile Rail Spur connects the site to the Buffalo and Pittsburgh (B&P) Railroad Line south of the site. From the south boundary of the site the rail spur extends through the site to the Fuel Receiving and Storage Facility and includes a siding switch and additional rail line siding on the east side of the Main (Old) Warehouse. Reinforcements and repairs were made to the spur near the Lake 1 Dam and several other locations by WVDP to support spent nuclear fuel and waste shipping. The rail spur is currently

operational and can be used during the contract period. DOE intends for the rail spur to be operable at the end of the contract period.

Rail Packaging and Staging Area
On your left is the Rail Packaging and Staging Area. This is primarily a staging area for waste packages destined for off site transportation via rail. It currently contains packaged components from decontamination of the Vitrification Facility.. DOE intends for this facility to be removed during the contract period.

102. → Cross over the rail spur and stop at the southwest corner of the NDA, facing down the road along the south side of the NDA, toward the SDA.

Nuclear Regulatory Commission Licensed Disposal Area (NDA) Trench Soil Container Area
The area on the right side of the road directly in front of us, and along the left side of the road to our left, is called the Nuclear Regulatory Commission Licensed Disposal Area Trench Soil Container Area. It is used as a staging area for Low Level Waste and contaminated soil roll-offs. The soil roll-offs were from the Nuclear Regulatory Commission Licensed Disposal Area Interceptor Trench project. The area consists of two gravel pad areas located south and west of the existing roadways adjacent to the Nuclear Regulatory Commission Licensed Disposal Area. During the contract period, it is DOE's intent that the waste be removed and disposed, and the facility removed.

Radwaste Treatment System (RTS) Drum Cell
The large building on your right is the Radwaste Treatment System Drum Cell. The Radwaste Treatment System Drum Cell currently contains 19,877 solidified Low Level Waste drums produced from the Supernatant Treatment System/Cement Solidification System. . Disposition of this waste and removal of the facility will be conducted through another contract. The facility is a 60 feet wide by feet long steel framed building with metal siding on a concrete base pad. It contains a shielded concrete enclosure that can accommodate a maximum of 21,500 71-gallon square drums. The berm and floor are coated with epoxy. During the contract period, it is DOE's intent that the waste be removed and disposed, and the facility removed under a different DOE contract.

Nuclear Regulatory Commission Licensed Disposal Area (NDA) Hardstand/Staging Area
At the far, or east, end of the road directly in front of you is the Nuclear Regulatory Commission Licensed Disposal Area Hardstand/Staging Area that was used until 1989 for staging radiological wastes prior to burial in the Nuclear Regulatory Commission Licensed Disposal Area. It is three-sided structure with cinderblock walls on a sloped pad of crushed stone that is currently overgrown. DOE intends that this facility be removed during the contract period.

State Licensed Disposal Area
Behind the Nuclear Regulatory Commission Licensed Disposal Area Hardstand/Staging Area is the State Licensed Disposal Area. The State Licensed Disposal Area was operated by Nuclear Fuel Services for New York State until 1976. The State Licensed Disposal Area is under the control of New York State and is not part of the WVDP.

103. → Drive north around the NDA and then east to the IWSF driveway.

Nuclear Regulatory Commission Licensed Disposal Area (NDA)

The Nuclear Regulatory Commission Licensed Disposal Area is on your right. It is an Inactive Waste Site (IWS) formerly used for the disposal of Low Level Waste generated by Nuclear Fuel Services during the commercial fuel reprocessing activities. It was used by the Department of Energy in the early 1980's during the original decontamination activities conducted as part of the WVDP. It is 370 feet by 600 feet (approximately 5 acres) and contains both deep and special holes used by NFS, and trenches and caissons used by the WVDP. This area also includes various support buildings and equipment and a former lagoon. DOE intends no further action, other than monitoring and maintenance, during the contract period.

Liquid (or Leachate) Pretreatment System (LPS)
The Liquid (or Leachate) Pretreatment System is located inside the Quonset type structure. The Liquid Pretreatment System is a standby system for treating water from the Nuclear Regulatory Commission-Licensed Disposal Area interceptor trench, should it test positive for organic compounds. The LPS consisting of equipment and materials to remove organics has not been used. DOE intends for this facility to remain operable during the contract period.

Interim Waste Storage Facility (IWSF)
This facility is the Interim Waste Storage Facility. It was formerly used for the staging of Low Level Waste prior to sampling and disposal. It is now used as interim storage for Low Level Waste and Low Level mixed waste. It is a 36 feet by 36 feet pre-engineered metal structure anchored to a concrete slab with a curbed perimeter. It is located west of the Liquid Pretreatment Building on the Nuclear Regulatory Commission-Licensed Disposal Area, and partially overlies the former Nuclear Regulatory Commission-Licensed Disposal Area Lagoon footprint. This facility may be removed prior to award of this contract. If not, DOE intends for this facility to be removed during the contract period.

This completes the tour of the West Valley Demonstration Project. We will now be returning to the Administrative Building to retrieve any items you may have left. Once in the Administrative Building, Mr. David Hess will discuss the process for submitting questions regarding information you have heard during this tour.

104. Turn around and Return to the Main Gatehouse.

105. Exit through the Main Gatehouse. Escort to the DOE Conference Room.

106. Return to Main Gatehouse, sign out.